

Lancaster Laboratories Sample No. SW 4542506

OU4-SS-04-COMP6(0-1) Soil Sample

RAL DePue Site

Collected: 06/03/2005

Account Number: 11594

Submitted: 06/13/2005 08:50 Reported: 06/30/2005 at 13:57

Blasland, Bouck & Lee 6723 Towpath Road, Box 66

> Std. Units

Discard: 07/31/2005

Syracuse NY 13214-0066

0.010

SS461 SDG#: DPU06-13

CAT			Dry	Dry Method		B/1
No.	Analysis Name	CAS Number	Result	Detection	Units	Dilution Factor
06935	Arsenic	7440-38-2	12.5	Limit 1.07	mg/kg	1
00111	Moisture Code 086	n.a.	6.9	0.50	*	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of t moisture resul	he sample afte t reported abo	er oven drying at ove is on an		
00394	pH Code 067	n.a.	7.0	0.010	Std	1

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

CAT		Laboratory	CIIIO	nicle		
No.	Analysis Name	Method	m-1-24	Analysis	**************************************	Dilution
06935	Arsenic		Trial#	Date and Time	Analyst	Factor
00111		SW-846 6010B	1	06/18/2005 12:17	Damary Valentin	1
	Moisture Code 086	EPA 160.3 modified	1	06/15/2005 07:58	William C Schwebel	1
00394	pH Code 067	SW-846 9045C (modified)	1	06/15/2005 00:10	Daniel S Smith	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	06/15/2005 07:00	Suzette L Lehman	1

8825





Lancaster Laboratories Sample No. SW 4542507

OU4-SS-04-COMP6(1-6) Soil Sample

RAL DePue Site

Collected: 06/03/2005 Account Number: 11594

Submitted: 06/13/2005 08:50 Reported: 06/30/2005 at 13:57

Discard: 07/31/2005

SS462 SDG#: DPU06-14*

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

Dry

0.000				221		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection	Units	Factor
00159	Mercury	7430 07 6		Limit		
01643		7439-97-6	0.0889 J	0.115	mg/kg	1
01650	Calcium	7429-90-5	12,800.	23.0	mg/kg	1
01654	Iron	7440-70-2	43,700.	34.6	mg/kg	1
01657	TOTAL TARK	7439-89-6	17,700.	23.0	mg/kg	1
		7439-95-4	27,100.	28.8	mg/kg	1
01662	Potassium	7440-09-7	2,000.	57.6	mg/kg	1
01667		7440-23-5	99.5 J	115.	mg/kg	1
06925		7440-28-0	N.D.	1.15	mg/kg	1
06935	Arsenic	7440-38-2	10.0	1.15	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.15	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.91	mg/kg	1
06946	Barium	7440-39-3	577.	11.5	mg/kg	1
06947	Beryllium	7440-41-7	0.667	0.346	mg/kg	1
06949	Cadmium	7440-43-9	23.9	2.30	mg/kg	1
06951	Chromium	7440-47-3	25.8	4.61	mg/kg	1
06952	Cobalt	7440-48-4	9.55	5.76	mg/kg	1
06953	Copper	7440-50-8	47.8	4.61	mg/kg	1
06955	Lead	7439-92-1	233. J	11.5	mg/kg	1
06958	Manganese	7439-96-5	956.)	2.30	mg/kg	1
06961	Nickel	7440-02-0	18.5	5.76	-	
06966	Silver	7440-22-4	0.614 J	2.30	mg/kg	1
06971	Vanadium	7440-62-2	32.1		mg/kg	1
06972	Zinc	7440-62-2		2.30	mg/kg	1
00111	Moisture Code 086	n.a.	2,000.	11.5	mg/kg	1
			13.2	0.50	8	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	moisture resul	he sample after t reported abov	r oven drying at ve is on an		
00394	pH Code 067	n.a.	7.4	0.010	Std. Units	1
	The pH was performed on a 1:1	slurry (25 gms.	of sample and	25 ml.	OHLUS	

on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

CAT No.

Analysis Name

Method

Analysis Trial# Date and Time Analyst

9026 Dilution Pactor



Chain of Custody



Syracuse, NY 13214-0056

(315) 446-9120 PROJ. NO.

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order#

Page 1 of 2

405-4646454/ 451144/4811

	\$															
	COC Number			Remarks	- ONLY	L ONLY			DARK	Ø 351 ×	COUC		DACS	- Olacy		OLAY
				0	ACSONA	ACKIN			ABREINE	ACHENAC	APSEN		AUSBRAC	AUNEDA		ABIONC ONLY
		_	1	로												
			808		+	+	+	\dashv	\dashv	-	+	+	-	4	7	
1			7.00	-	7	+	\forall	+	+	+	+	+	+	+	+	\dashv
				•	1	1	1		1		I	1		1	1	
	- 1			7	1	+	+	1	-	+		1	-	1	1	
	25	å		- ×	_	-	-	_	_	-	\rightarrow	-	_	_	-	The same of
	AL DePue 8			CONTRIBUTE	-	-	-			-	-	-	-		-	
	2		GPAD	3	T	T	T	T	1	T	T	T	1	Ť	\dagger	1
			COMP		T	T	T	T	T	T	1	T	1	Ť	1	
			3		SO	80	SO	80	So	80	so	SO	So	80	So	
			TIME	0:00	00:0	0:00	0:00	0:00	00:0	00:00	00:0	0:00	00:0	0:00	0:00	
T NAME			DATE	8/3/2005	8/3/2005	8/3/2005	8/3/2005	8/3/2005	6/3/2005	8/3/2005	8/3/2005	8/2/2005	8/2/2005	8/2/2005	8/2/2005	
PROJEC	85534 AMPLERS: (Signiture)		SAMPLE ID	OU4-SS-04-COMP1(0-1)	OUA-SS-04-COMP1(1-6)	OU4-SS-04-COMP1(6-12)	OU4-SS-04-COMP2(0-1)	OU4-SS-04-COMP2(1-6)	OU4-SS-04-COMP2(12-18)	OU4-SS-04-COMP3(0-1)	OU4-SS-04-COMP3(1-6)					
	PROJECT NAME	PROJECT NAME 15534 RAL DePue Site	PROJECT NAME RAL DePue Site Statisture)	SS34 RAL DePue Site RAL DePue Site Requested Anelyses SAMPLE ID DATE TIME MATRIX COMP COMP COMP COMP	PROJECT NAME RAL DePue Site	PROJECT NAME RAL DePue Site Requested Analyses SAMPLE ID DATE TIME MATRIX COMP. GRAB Containers 1 2 3 4 6 6 7 HOLD LSS-04-COMP1(0-1) 8/3/2005 0:00 SO 1 X X X X X X X X X	PROJECT NAME RAL DePue Site	PROJECT NAME RAL DePue Site Requested Analyses Requested Analyses SAMPLE ID BAZZO05 0:00 SO 1	PROJECT NAME RAL DePue Site	PROJECT NAME RAL DePue Stee Requested Analyses SAMPLE ID DATE TIME MATRIX COMP. GRAB Containers 1 2 3 4 5 5 7 HOLD LSS-04-COMP1(0-1) G/3/2005 0:00 SO 1 X X X X X X X X X	PROJECT NAME	SAMPLE ID DATE Time MATRIX COMP. GRAB Containers Time COMP. GRAB COMP. Time COMP	SAMPLE ID DATE Time MATRIX COMP. GRAB Containers 1 2 3 4 5 6 7 HOLD	SAMPLE ID DATE TIME MATRIX COMP GRAB Containers A	SAMPLE ID	SAMPLE ID

Requested Analyses	Special Instructional Commanda.		
1. Motals		R Special QA/QC Instructions	Instructions
2. pH	_		as seen
3.			
4		Laboratory Information and Receipt	
	Lab Name: Lancaster Laboratories		
o o		[5] Cooler passing 1.44.	Sample Receipt
A STATE OF THE PARTY OF THE PAR			
	Specify Tumaround Requirements.		
7.		Cooler custody seal intact	Condition/Cooler Temp:
Relinquished by: (Stansture)			
Lybor /	Relinquished by: (Signeture)		DATE TIME Received by: (Signature)
TIME	Becalved In Br		(agrama) for
	Refinquished by: (Signature)	DATE	TIME, Received by: (Slandtree)
Relinquished by: (Signaturo) DATE TIME	Recolved for / Cleant	/	
	Refinquished by: (Signature)	DATE	TIME Received by Glematical
		80,302/08	0
		2000	2 1200 780 F



Byracuse, NY 13214-0068

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 2 of 2

405-4646454/461746/46611

		COC Number					Remede	LANGERE	ACHONIC ONLY		
			-				HOLD	L			
					Requested Analyses	L	9	-	-		
4			l		d Ana	H	9	_	1	_	
5					meste	-	2		1		
34		£		Ė	Red	-	7	×	1	×	
44174 /45 42494-507		RAL DePue Site				WATRIX COMP GRABI Confessions	CONGINGIB	-	1	-	- Charleston - Cha
7		22				GRAB			T		
124						COMP					
1947						_	08	3	SO		
26	1					TIME	00.0		00:0		
11594	PROJECT NAME					DATE	8/3/2005		6/3/2005		
(315) 448-9120	PROJ. NO. PROJEC	85534 SAMPLERS: (Simpling)	(Alexandra)			SAMPLE ID	OU4-SS-04-COMP6(0-1)	10000000	OU4-55-04-COMPE(1-6)		

December of Academic			
hequested Analyses	Special Instructions/ Commenter		
Metals		Special QA	Special QA/QC Instructions
The state of the s			-
The state of the s		Laboratory information and Dacated	
	Lab Name: Lancaster I showtones	Administration with recently	
			Complete Com
	Shipping Tracking #	Cooler packed with los	outriple receipt:
	Specify Turnemind Damid		
	The state of the s	R Cooler custody seet intect	Condition/Cooler Terms
ŀ		Contra inchi	
DATE	TIME Received by: (Signature) Relinquishe	Relinguished In: (Phone	
Way Ma		DATE	ATIME Received by: (Signature)
Relinguished by: (Signature) DATE TIME	Raceheel My Col-		
_	(aurum) of the true	Relinquished by (Signature)	TIME Received by Barret III
Refinquished by: (Stansture)		/	(amphilip) of particular
	Recaived by: (Signature) Relinquisher	Relinquished by: (Signature)	TIME Received by: (Signature)
			+ X01/2
			150 Keek 6/150 Keek

DATA REVIEW FOR

DEPUE REMOVAL ACTION LIMIT (RAL) ASSESSMENT DEPUE, ILLINOIS

SDG# DPU07

METALS ANALYSES

Analyses performed by:

Lancaster Laboratories, Inc. Lancaster, Pennsylvania

Review performed by:



Blasland, Bouck & Lee, Inc. Syracuse, New York Summary The following is an assessment of the data package for SDG# DPU07 for sampling from the RAL DePue Site. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample			Ana	alysis		
Campio is	20.0 15	matrix	Date	VOA	svoc	PCB	MET	PEST	MISC
OU4-SS-05-COMP1(0-1)	4542508	Soil	6/6/2005				X		
OU4-SS-05-COMP1(1-6)	4542509	Soil	6/6/2005				X		
OU4-SS-05-COMP2(0-1)	4542510	Soil	6/6/2005				X		
OU4-SS-05-COMP2(1-6)	4542511	Soil	6/6/2005				X		
OU4-SS-05-COMP2(6-12)	4542512	Soil	6/6/2005				X		
OU4-SS-05-COMP3(1-6)	4542513	Soil	6/6/2005				X		
OU4-SS-05-COMP3(6-12)	4542514	Soil	6/6/2005				X		
OU4-SS-05-COMP4(0-1)	4542515	Soil	6/6/2005				X		
OU4-SS-06-COMP1(1-6)	4542516	Soil	6/6/2005				Х		
OU4-SS-06-COMP2(1-6)	4542517	Soil	6/6/2005				X		
OU4-SS-06-COMP3(1-6)	4542518	Soil	6/6/2005				X		
OU4-SS-06-COMP4(1-6)	4542519	Soil	6/6/2005				X		
OU4-SS-06-COMP5(6-12)	4542520	Soil	6/6/2005				X		
OU4-SS-07-COMP1(1-6)	4542521	Soil	6/7/2005				X		
OU4-SS-07-COMP2(6-12)	4542522	Soil	6/7/2005				Χ		
OU4-SS-07-COMP4(1-6)	4542523	Soil	6/7/2005				X		
OU4-SS-07-COMP5(1-6)	4542524	Soil	6/7/2005				Χ¹		
			•						

¹ MS/MSD analysis performed on sample.

METALS ANALYSES

<u>Introduction</u>

Analyses were performed according to USEPA 6000/7000. Data were reviewed in accordance with USEPA National Functional Guidelines of February 1994.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

Concentration (C) qualifiers:

- U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.
- B The reported value was obtained from a reading less than the contract required detection limit (CRDL) but greater than or equal to the instrument detection limit (IDL).

Quantitation (Q) qualifiers:

- E The reported value is estimated due to the presence of interference.
- N Spiked sample recovery not within control limits.
- * Duplicate analysis not within control limits.

Validation qualifiers:

- J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.
- UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for metals analyses is 180 days and for mercury is 28 days from sample receipt. Samples are required to be preserved at 4°C.

All samples were analyzed within the specified holding times.

Note: Sample temperatures were greater than the required preservation temperature of 4°C.

2. Blank Contamination

Quality assurance blanks, i.e., method or rinse blanks, are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks (including initial and continuing calibration blanks and preparation blanks) measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

Several analytes were detected above the method detection limit in the method blank and/or the calibration blank. All associated sample results were greater than the blank action limit; therefore, none of the data were qualified.

Sodium was detected above the method detection limit in the associated rinse blank (RB060605-1) collected on 6/6/05 and associated with SDG#DPU05. All associated sample results were greater than the blank action limit; therefore, none of the data were qualified

Several analytes were detected above the method detection limit in the associated rinse blank (RB060605-2) collected on 6/6/05 and associated with SDG#DPU05. All associated sample results were greater than the blank action limit; therefore, none of the data were qualified

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument continuing performance is satisfactory.

3.1 Initial Calibration

The correct number and type of standards were analyzed and all initial calibration verification standard recoveries were within control limits.

3.2 Continuing Calibration

All continuing calibration verification standard recoveries were within control limits.

3.3 CRDL Standard

All required analytes evaluated by the guidelines exhibited CDRL recoveries within the control limit with the exception of manganese and zinc. The CRDL standard of these analytes exhibited recoveries greater than the control limit. All associated sample locations exhibited concentrations greater than two times the reporting limit; therefore, none of the data were qualified due to this deviation.

3.4 ICP Interference Control Sample

All ICS recoveries were acceptable.

4. Matrix Spike/ Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate Analysis

Matrix spike and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS/MSD Analysis

The MS recovery of copper exhibited a recovery greater than control limits. All associated sample results for copper were qualified as estimated.

4.2 Laboratory Duplicate Analysis

The laboratory duplicate results were within control limits.

5. Field Duplicate

No field duplicates were performed within this SDG.

6. Laboratory Control Sample (LCS)

LCS recoveries were within control limits.

7. Serial Dilution

Serial dilutions were within control limits.

8. Furnace QC

No furnace analyses were performed on the samples.

9. Method of Standard Additions (MSA)

No samples were analyzed following the method of standard additions.

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Data Validation Checklist

Inorganic Data Validation Checklist	YES	NO	NA
Data Completeness and Deliverables	X		
Is there a narrative or cover letter present?			_
Are the sample numbers included in the narrative?	X		
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?	X		
Is the package paginated?	X		
Are the forms and copies legible?	X		
Form I to IX			
Are all the Form I through Form IX labeled with:			
Laboratory name?	X		
Sample No.?	X		
SDG No.?	X		
Correct units?	X		
Matrix?	X		
Raw Data			
Is the digestion log for flame AA/ICP present?	X		
Is the digestion log for furnace AA present?			X
Is the distillation log for mercury present?			X
Is the distillation log for cyanides present?			X
Are pH values listed?			
pH for metals analyses <2 (waters)?			X
pH for cyanide analyses >12 (waters)?			X
Percent solids calculation present for soils/sediments?	X		
Are preparation dates present on sample preparation logs/bench sheets?	X		
Are the measurement read out records present for:			
ICP	X		
Flame AA			X
Furnace AA			X
Mercury	X		
Cyanides			X
Is the data legible?	X		
Is the data properly labeled?	X		
Holding Times			_
4956P doc	X		

4856R doc JCi

Inorganic Data Validation Checklist	YES	NO	NA
Were mercury analyses performed within 28 days?			
Were cyanide distillations performed within 14 days?			X
Were other metal analysis performed within 6 months?	X		
Form I (Final Data)			
Are all forms complete?	X		
Are correct units indicated on Form I's?	X		
Are soil sample results for each parameter corrected for percent solids?	X		
Are all "less than IDL" values properly coded with "U"?	X		
Are the correct concentration qualifiers on Form 1's?	X		
Is a physical description of samples given on Form I's?	X		
<u>Calibration</u>			
Is a record of at least 2 point calibration present for ICP analysis?	X		
Is a record of 5 point calibration present for Hg analysis?	X		
Is a record of 4 point calibration present for:			
Flame AA?			X
Furnace AA?			X
Cyanides?			X
Is one calibration standard at the CRDL level for all AA (except Hg) and cyanides analyses?			X
Is correlation coefficient less than .995 for:			
Mercury Analysis?		X	
Cyanide Analysis?			X
Atomic Absorption Analysis?			X
Form II A (Initial and Continuing Calibration Verification)			
Present and complete for all analytes?	X		
Are all calibration standards (initial and continuing) within control limits for:			
Metals (90-110%)?	X		
Hg (80-120%)?	X		
Cyanides (85-115%)?			X
Was continuing calibration performed every 10 samples or every 2 hours?	X		
Was the ICV for cyanides distilled?			X
Form II B (CRDL Standards for AA and ICP)			
Was a CRDL standard (CRA) analyzed after initial calibration for all AA metals (except Hg)?	X		
Was a mid-range calibration verification standard distilled and analyzed for cyanide analysis?			X

Inorganic Data Validation Checklist			
	YES	NO	NA
Was a 2xCRDL (or 2xIDL when IDL>CRDL) standard (CRI) analyzed for each ICP run?	X		
Was CRI analyzed after the ICV/ICB and before the final CCV/CCB, and twice every eight hours for each ICP run?	X		
Are CRA and CRI standards within control limits for metals (70-130%)?	X		
Is mid-range standard within control limits for cyanide (80-120%)			X
Form III (Initial and Continuing Calibration Blanks)			
Present and complete?	X		
Was an initial calibration blank analyzed?	X		
Was a continuing calibration blank analyzed after every 10 samples or every 2 hours (which ever is more frequent)?	X		
Are all calibration blanks (when IDL <crdl) (crdls)?<="" contract="" detection="" equal="" less="" limits="" or="" required="" td="" than="" the="" to=""><td>X</td><td></td><td></td></crdl)>	X		
Are all calibration blanks less than two times Instrument Detection Limit (when IDL>CRDL)?	X		
Form III (Preparation Blank)			
Was one prep. blank analyzed for:			
each Sample Delivery Group SDG)?	X		
each batch of digested samples?	X		
each matrix type?	X		
Is concentration of prep. blank value less than the CRDL (when IDL≤CRDL)?	X		
If no, is the concentration of the sample with the least concentrated analyte less than 10 times the prep. blank?	X		
Is concentration of prep. blank value less than two times IDL (when IDL>CRDL)?		X	
Is concentration of prep. blank below the negative CRDL?		X	
Form IV (ICP Interference Check Sample)			
Present and complete?	X		
Was ICS analyzed at beginning and end of run (or at least twice every 8 hours)?	X		
Are all ICS results inside the control limits ($\pm 20\%$)?	X		
If no, is concentration of Al, Ca, Fe, or Mg lower than the respective concentration in ICS?			X
Form V A (Spiked Sample Recovery - Pre-Digestion/Pre-Distillation			
Present and complete for:			
each SDG?	X		
each matrix type?	X		
Was field blank used for spiked sample?		X	

Inorganic Data Validation Checklist			
	YES	NO	NA
Are all recoveries for analytes with sample concentrations less than four times the spike concentration within control limits (75-125)?		X	
Are results outside the control limits (75-125%) flagged with "N" on Form I's and Form VA?			X
Aqueous			
Are any spike recoveries:			
less than 30%?			X
between 30-74%?			X
between 126-150%?			X
greater then 150%?			X
Soil/Sediment			
Are any spike recoveries:			
less than 10%?		X	
between 10-74%?		X	
between 126-200%?	X		
greater than 200%?		X	
Form VI (Lab Duplicates)			
Present and complete for:			
each SDG?	X		
each matrix type?	X		
Was field blank used for duplicate analysis?		X	
Are all values within control limits (RPD 20% or difference ≤ ±CRDL)?	X		
If no, are all results outside the control limits flagged with an * on Form I's and VI?	X		
Aqueous			
Is any RPD greater than 20% where sample and duplicate are both greater than or equal to 5 times CRDL?			X
Is any difference between sample and duplicate greater than CRDL where sample and/or duplicate is less than 5 times CRDL? Soil/Sediment			X
Is any RPD (where sample and duplicate are both greater than or equal to 5 times CRDL) >35 %?		X	
Is any difference between sample and duplicate (where sample and/or duplicate is less than $5xCRDL$) > $2xCRDL$?		X	
Field Duplicates			
Were field duplicates analyzed?		X	
Aqueous			
is any RPD greater than 50% where sample and duplicate are both greater than or equal to 5xCRDL?			X
4856R doc	JCH	<u></u>	

Inorganic Data Validation Checklist	1	1 1	1
	YES	NO	NA
Is any difference between sample and duplicate greater than CRDL where sample and/or duplicate is less than 5xCRDL?			X
<u>Soil/Sediment</u>			
Is any RPD (where sample and duplicate are both greater than 5 times CRDL) > 100%?			X
Is any difference between sample and duplicate (where sample and/or duplicate is less than $5x$ CRDL) $> 2x$ CRDL?			X
Form VII (Laboratory Control Sample)			
Was one LCS prepared and analyzed for:			
each SDG?	X		
each batch samples digested/distilled?	X		
Aqueous LCS			
Is any LCS recovery:			X
less than 50%?			X
between 50% and 79%?			X
between 121% and 150%?			X
greater than 150%?			X
Solid LCS			
Is LCS "Found" value higher than the control limits?		X	
Is LCS "Found" lower than the control limits?		X	
Form IX (ICP Serial Dilution)			
Was Serial Dilution analysis performed for:			
each SDG?	X		
each matrix type?	X		
		77	
Was field blank(s) used for Serial Dilution Analysis?		X	
Are results outside control limits flagged with an "E"" on Form I's and Form IX when the initial concentration on Form IX is equal to 50 times IDL or greater.		X	
Are any required % difference values:			
> 10%?		X	
≥100%?		X	
Furnace Atomic Absorption (AA) QC Analysis			
Are duplicate injections present in furnace raw data (except during full Method of Standard Addition) for each sample analyzed by GFAA?			X
Do the duplicate injection readings agree within 20% Relative Standard Deviation (RSD) or coefficient of Variation (CV) for concentrations greater than CRDL?			X
Were dilutions analyzed for samples with analytical spike recovery less than 40%? 4856R doc	JCF	1	X

Inorganic Data Validation Checklist	TIEG	310	1374
	YES	NO	NA V
Is analytical spike recovery outside the control limits (85-115%) for any sample?			X
Form VIII (Method of Standard Addition Results)			
Present?			X
If no, is any Form I result coded with "S" or "+"?			X
Was MSA required for any sample but not performed?			X
Is the coefficient of correlation for MSA less than 0.995 for any sample?			X
Is the coefficient of correlation for MSA less than 0.990 for any sample?			X
Was proper quantitation procedure followed?			X
Dissolved/Total for Inorganic/Total Analytes			1
Were any analyses performed for dissolved as well as total analytes on the same sample.			X
Is the concentration of any dissolved analyte greater than its total concentration by more than 10%? (if >CRDL)			X
Is the concentration of any dissolved analyte greater than its total concentration by more than 50%?			X
Field Blank			
Is the field blank concentration less than CRDL (or 2xIDL when IDL>CRDL) for all analytes?			X
If no, was field blank value already rejected due to other QC criteria?			X
Form X, XI, XII (Verification of Instrumental Parameters)			1
Is verification report present for :			
Instrument Detection Limits (quarterly)?	X		
ICP Interelement Correlation Factors (annually)?	X		
ICP Linear Ranges (quarterly)?	X		
Is IDL greater than CRDL for any analyte?		X	
If yes, are the concentrations of the samples analyzed on the instrument whose IDL exceeds CRDL, greater than 5xIDL.			X
Was any sample result higher than the linear range of ICP.		X	
Was any sample result higher than the highest calibration standard for non-ICP parameters?		X	
If yes for any of the above, was the sample diluted to obtain the result on Form I?			X
Percent Solids			
Are the percent solids in soil/sediment(s):			
< 50%?		X	
< 10%?		X	

Corrected Sample Analysis Data Sheets



Lancaster Laboratories Sample No. SW 4542508

OU4-SS-05-COMP1(0-1) Soil Sample

RAL DePue Site

Collected: 06/06/2005

Submitted: 06/13/2005 08:50

Reported: 06/30/2005 at 13:59

Discard: 07/31/2005

SS511 SDG#: DPU07-01

Account Number: 11594

Drv

Blasland, Bouck & Lee 6723 Towpath Road, Box 66

Syracuse NY 13214-0066

				DLY			
CAT			Dry	Method		Dilutio	on
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor	
06935	Arsenic	7440-38-2	9.03	1.08	mg/kg	1	
00111	Moisture Code 086	n.a.	7.3	0.50	8	1	
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of t moisture resul	the sample after t reported abov	oven drying at e is on an			
00394	pH Code 067	n.a.	6.8	0.010	Std. Units	1	
	The all one performed on a 1.1	elurry (25 cms	of sample and	25 ml.			

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

CAT				Analysis		Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
06935	Arsenic	SW-846 6010B	1	06/17/2005 18:57	John P Hook	1
00111	Moisture Code 086	EPA 160.3 modified	1	06/15/2005 08:30	William C Schwebel	1
00394	pH Code 067	SW-846 9045C	1	06/15/2005 00:10	Daniel S Smith	1
05708	SW SW846 ICP Digest	(modified) SW-846 3050B	1	06/16/2005 19:45	Annamaria Stipkovits	1

8815



Units .



Page 1 of 1

Lancaster Laboratories Sample No. SW 4542509

OU4-SS-05-COMP1(1-6) Soil Sample

RAL DePue Site

Collected: 06/06/2005

Account Number: 11594

Submitted: 06/13/2005 08:50 Reported: 06/30/2005 at 13:59

Discard: 07/31/2005

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

SS512 SDG#: DPU07-02

				Dry		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
06935	Arsenic	7440-38-2	10.3	1.04	mg/kg	1
00111	Moisture Code 086	n.a.	3.8	0.50	8	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.			ove is on an		
00394	pH Code 067	n.a.	6.7	0.010	Std.	1

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

	Luzoruco 1				
	7		Analysis		Dilution
Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
Arsenic	SW-846 6010B	1	06/17/2005 19:02	John P Hook	1
Moisture Code 086	EPA 160.3 modified	1	06/15/2005 08:30	William C Schwebel	1
pH Code 067	SW-846 9045C	1	06/15/2005 00:10	Daniel S Smith	1
SW SW846 ICP Digest	(modified) SW-846 3050B	1	06/16/2005 19:45	Annamaria Stipkovits	1
	Moisture Code 086 pH Code 067	Analysis Name Method Arsenic SW-846 6010B Moisture Code 086 EPA 160.3 modified pH Code 067 SW-846 9045C (modified)	Analysis Name Method Trial# Arsenic SW-846 6010B 1 Moisture Code 086 EPA 160.3 modified 1 pH Code 067 SW-846 9045C 1 (modified)	Analysis Name Method Trial# Date and Time Arsenic SW-846 6010B 1 06/17/2005 19:02 Moisture Code 086 EPA 160.3 modified 1 06/15/2005 08:30 pH Code 067 SW-846 9045C 1 06/15/2005 00:10 (modified)	Analysis Name Method Trial# Date and Time Analyst Arsenic SW-846 6010B 1 06/17/2005 19:02 John P Hook Moisture Code 086 EPA 160.3 modified 1 06/15/2005 08:30 William C Schwebel pH Code 067 SW-846 9045C 1 06/15/2005 00:10 Daniel S Smith (modified)

5911





Lancaster Laboratories Sample No. SW 4542510

OU4-SS-05-COMP2(0-1) Soil Sample

RAL DePue Site

Collected: 06/06/2005

Submitted: 06/13/2005 08:50

Discard: 07/31/2005

Reported: 06/30/2005 at 13:59

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66

Syracuse NY 13214-0066

SS521 SDG#: DPU07-03

				Dry		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
06935	Arsenic	7440-38-2	12.8	1.09	mg/kg	1
00111	Moisture Code 086	n.a.	8.4	0.50	¥	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of t moisture resul	he sample afte t reported abo	r oven drying at ove is on an		
00394	pH Code 067	n.a.	7.0	0.010	Std. Units	1

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

CAT		HACKSTON OF HIS PARKET COLORS		Analysis		Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
06935	Arsenic	SW-846 6010B	1	06/17/2005 19:16	John P Hook	1
00111	Moisture Code 086	EPA 160.3 modified	1	06/15/2005 08:30	William C Schwebel	1
00394	pH Code 067	SW-846 9045C	1	06/15/2005 00:10	Daniel S Smith	1
	Section Section 1997 (Section 1997)	(modified)				
05708	SW SW846 ICP Digest	SW-846 3050B	1	06/16/2005 19:45	Annamaria Stipkovits	1

9912:





Lancaster Laboratories Sample No. SW 4542511

OU4-SS-05-COMP2(1-6) Soil Sample

RAL DePue Site

Collected: 06/06/2005 Account Number: 11594

Submitted: 06/13/2005 08:50

Discard: 07/31/2005

Blasland, Bouck & Lee Reported: 06/30/2005 at 13:59 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

SS522 SDG#: DPU07-04

				Dry		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.149	0.106	mg/kg	1
01643	Aluminum	7429-90-5	7,890.	21.2	mg/kg	1
01650	Calcium	7440-70-2	39,900.	31.7	mg/kg	1
01654	Iron	7439-89-6	14,000.	21.2	mg/kg	1
01657	Magnesium	7439-95-4	22,800.	26.5	mg/kg	1
01662	Potassium	7440-09-7	1,540.	52.9	mg/kg	1
01667	Sodium	7440-23-5	178.	106.	mg/kg	1
06925	Thallium	7440-28-0	N.D.	1.06	mg/kg	1
06935	Arsenic	7440-38-2	26.8	1.06	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.06	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.35	mg/kg	1
06946	Barium	7440-39-3	2,400.	10.6	mg/kg	5
06947	Beryllium	7440-41-7	0.759	0.317	mg/kg	1
06949	Cadmium	7440-43-9	14.0	2.12	mg/kg	1
06951	Chromium	7440-47-3	30.8	4.23	mg/kg	1
06952	Cobalt	7440-48-4	5.68	5.29	mg/kg	1
06953	Copper	7440-50-8	39.2	4.23	mg/kg	1
06955	Lead	7439-92-1	179.	10.6	mg/kg	1
06958	Manganese	7439-96-5	439.	2.12	mg/kg	1
06961	Nickel	7440-02-0	14.2	5.29	mg/kg	1
06966	Silver	7440-22-4	0.359 J	2.12	mg/kg	1
06971	Vanadium	7440-62-2	20.0	2.12	mg/kg	1
06972	Zinc	7440-66-6	1,280.	10.6	mg/kg	1
00111	Moisture Code 086	n.a.	5.5	0.50	*	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of t moisture resul	he sample after o	oven drving at	(*	
00394	pH Code 067	n.a.	7.4	0.010	Std. Units	1

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

No. Analysis Name

CAT

Method

Analysis

Trial# Date and Time

Analyst

36.13 Dilution Factor





Lancaster Laboratories Sample No. SW 4542512

OU4-SS-05-COMP2(6-12) Soil Sample

RAL DePue Site

Collected:06/06/2005

Account Number: 11594

Submitted: 06/13/2005 08:50 Reported: 06/30/2005 at 13:59 Blasland, Bouck & Lee 6723 Towpath Road, Box 66

Discard: 07/31/2005

00394 pH Code 067

Syracuse NY 13214-0066

0.010

Std. Units .

SS523 SDG#: DPU07-05

				Dry		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
06935	Arsenic	7440-38-2	16.9	1.06	mg/kg	1
00111	Moisture Code 086	n.a.	5.3	0.50	*	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.					

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

n.a.

Laboratory Chronicle

7.6

CAT				Analysis		Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
06935	Arsenic	SW-846 6010B	1	06/17/2005 19:25	John P Hook	1
00111	Moisture Code 086	EPA 160.3 modified	1	06/15/2005 08:30	William C Schwebel	1
00394	pH Code 067	SW-846 9045C (modified)	1	06/15/2005 00:45	Daniel S Smith	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	06/16/2005 19:45	Annamaria Stipkovits	1

8915





Lancaster Laboratories Sample No. SW 4542513

OU4-SS-05-COMP3(1-6) Soil Sample

RAL DePue Site

Collected: 06/06/2005

Submitted: 06/13/2005 08:50 Reported: 06/30/2005 at 13:59

Discard: 07/31/2005

SS531 SDG#: DPU07-06

Account Number: 11594

Dry

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

CAT			2	Dry		
No.	Analysis Name		Dry	Method		Dilution
	Mary Stanle	CAS Number	Result	Detection	Units	Factor
00159	Mercury	7439-97-6	0.109	Limit 0.106	/	
01643	Aluminum	7429-90-5	9,570.	21.3	mg/kg	1
01650	Calcium	7440-70-2	33,000.	31.9	mg/kg	1
01654	Iron	7439-89-6	14,600.		mg/kg	1
01657	Magnesium	7439-95-4	20,600.	21.3	mg/kg	1
01662	-	7440-09-7		26.6	mg/kg	1
01667	Sodium	7440-09-7	1,940.	53.1	mg/kg	1
06925	Thallium	7440-23-5	132.	106.	mg/kg	1
06935			1.00 J	1.06	mg/kg	1
06936		7440-38-2	9.01	1.06	mg/kg	1
06944		7782-49-2	N.D.	1.06	mg/kg	1
06946		7440-36-0	N.D.	6.38	mg/kg	1
06947		7440-39-3	2,440.	10.6	mg/kg	5
06949	Beryllium	7440-41-7	0.571	0.319	mg/kg	1
	Cadmium	7440-43-9	14.7	2.13	mg/kg	1
06951	Chromium	7440-47-3	21.0	4.25	mg/kg	1
06952	Cobalt	7440-48-4	8.12	5.31	mg/kg	1
06953	Copper	7440-50-8	26.5 👃	4.25	mg/kg	1
06955	Lead	7439-92-1	123.	10.6	mg/kg	1
06958	Manganese	7439-96-5	506.	2.13	mg/kg	1
06961	Nickel	7440-02-0	16.2	5.31	mg/kg	1
06966	Silver	7440-22-4	0.381 J	2.13	mg/kg	1
06971	Vanadium	7440-62-2	23.3	2.13	mg/kg	1
06972	Zinc	7440-66-6	1,350.	10.6	mg/kg	1
00111	Moisture Code 086	n.a.	5.9	0.50	*	1
	"Moisture" represents the loss		he sample after	oven drains at	5	1
	103 - 105 degrees Celsius. The	moisture resul	t reported above	is on an		
	as-received basis.			and our unit		
00394	pH Code 067	n.a.	7.4	0.010	Std.	1
	The self				Units	
	The ph was performed on a 1.1	0]11444 /25	1			

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

No. Analysis Name

CAT

Method

Analysis Trial# Date and Time

Analyst

9815 Dilution Factor





Lancaster Laboratories Sample No. SW 4542514

OU4-SS-05-COMP3(6-12) Soil Sample

RAL DePue Site

Collected: 06/06/2005

Submitted: 06/13/2005 08:50 Reported: 06/30/2005 at 13:59

Discard: 07/31/2005

SS532 SDG#: DPU07-07

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

				Dry		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
06935	Arsenic	7440-38-2	7.59	1.05	mg/kg	1
00111	Moisture Code 086	n.a.	5.1	0.50	*	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of the moisture result	e sample after of reported above	oven drying at is on an		
00394	pH Code 067	n.a.	7.6	0.010	Std. Units	1
	The pH was performed on a 1.1		- 5 3 3 3	- 1	- 10,000 (100 (100 (100 (100 (100 (100 (1	

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

CAT				Analysis		Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
06935	Arsenic	SW-846 6010B	1	06/17/2005 19:34	John P Hook	1
00111	Moisture Code 086	EPA 160.3 modified	1	06/15/2005 08:30	William C Schwebel	1
00394	pH Code 067	SW-846 9045C (modified)	1	06/15/2005 00:45	Daniel S Smith	ī
05708	SW SW846 ICP Digest	SW-846 3050B	1	06/16/2005 19:45	Annamaria Stipkovits	1

8166





Lancaster Laboratories Sample No. SW 4542515

OU4-SS-05-COMP4(0-1) Soil Sample

RAL DePue Site

Collected: 06/06/2005 Account Number: 11594

Submitted: 06/13/2005 08:50 Reported: 06/30/2005 at 13:59

Discard: 07/31/2005

SS541 SDG#: DPU07-08

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

Dry

				1		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.0950 J	0.114	mg/kg	1
01643	Aluminum	7429-90-5	8,480.	22.8	mg/kg	1
01650	Calcium	7440-70-2	5,740.	34.2	mg/kg	1
01654	Iron	7439-89-6	14,100.	22.8	mg/kg	1
01657	Magnesium	7439-95-4	3,840.	28.5	mg/kg	1
01662	Potassium	7440-09-7	1,600.	57.1	mg/kg	1
01667	Sodium	7440-23-5	83.3 J	114.	mg/kg	1
06925	Thallium	7440-28-0	N.D.	1.14	mg/kg	1
06935	Arsenic	7440-38-2	8.20	1.14	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.14	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.85	mg/kg	1
06946	Barium	7440-39-3	3,970.	11.4	mg/kg	5
06947	Beryllium	7440-41-7	0.452	0.342	mg/kg	1
06949	Cadmium	7440-43-9	19.6	2.28	mg/kg	1
06951	Chromium	7440-47-3	22.3	4.57	mg/kg	1
06952	Cobalt	7440-48-4	7.20	5.71	mg/kg	1
06953	Copper	7440-50-8	34.2	4.57	mg/kg	1
06955	Lead	7439-92-1	1,080.	11.4	mg/kg	1
06958	Manganese	7439-96-5	450.	2.28	mg/kg	1
06961	Nickel	7440-02-0	14.6	5.71	mg/kg	1
06966	Silver	7440-22-4	0.552 J	2.28	mg/kg	1
06971	Vanadium	7440-62-2	22.7	2.28	mg/kg	1
06972	Zinc	7440-66-6	2,470.	11.4	mg/kg	1
00111	Moisture Code 086	n.a.	12.4	0.50	*	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of t moisture resul	he sample after t reported above	oven drying at e is on an		
00394	pH Code 067	n.a.	6.6	0.010	Std.	1
	_				Units	

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

Analysis Analysis Name Method

Trial# Date and Time

Analyst

8519 Dilution Factor



CAT

No.



Lancaster Laboratories Sample No. SW 4542516

OU4-SS-06-COMP1(1-6) Soil Sample

RAL DePue Site

Collected: 06/06/2005

Submitted: 06/13/2005 08:50 Reported: 06/30/2005 at 13:59

Discard: 07/31/2005

SS611 SDG#: DPU07-09

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

				Dry		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.0719 J	0.106	mg/kg	1
01643	Aluminum	7429-90-5	10,700.	21.3	mg/kg	1
01650	Calcium	7440-70-2	5,190.	31.9	mg/kg	1
01654	Iron	7439-89-6	24,200.	21.3	mg/kg	1
01657	Magnesium	7439-95-4	2,600.	26.6	mg/kg	1
01662	Potassium	7440-09-7	1,630.	53.2	mg/kg	1
01667	Sodium	7440-23-5	60.1 J	106.	mg/kg	1
06925	Thallium	7440-28-0	1.10	1.06	mg/kg	1
06935	Arsenic	7440-38-2	15.0	1.06	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.06	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.39	mg/kg	1
06946	Barium	7440-39-3	1,960.	10.6	mg/kg	10
06947	Beryllium	7440-41-7	0.825	0.319	mg/kg	1
06949	Cadmium	7440-43-9	37.5	2.13	mg/kg	1
06951	Chromium	7440-47-3	20.3	4.26	mg/kg	1
06952	Cobalt	7440-48-4	9.73	5.32	mg/kg	1
06953	Copper	7440-50-8	49.9	4.26	mg/kg	1
06955	Lead	7439-92-1	252.	10.6	mg/kg	1
06958	Manganese	7439-96-5	774.	2.13	mg/kg	1
06961	Nickel	7440-02-0	20.1	5.32	mg/kg	1
06966	Silver	7440-22-4	0.906 J	2.13	mg/kg	1
06971	Vanadium	7440-62-2	31.9	2.13	mg/kg	1
06972	Zinc	7440-66-6	4,050.	10.6	mg/kg	10
00111	Moisture Code 086	n.a.	6.1	0.50	*	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of t moisture resul	he sample after of treported above	oven drying at is on an		
00394	pH Code 067	n.a.	7.2	0.010	Std. Units	1

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

Analysis
Method Trial# Date and Time

Analyst

8821 Dilution Factor



Analysis Name

CAT

No.



Lancaster Laboratories Sample No. SW 4542517

OU4-SS-06-COMP2(1-6) Soil Sample

RAL DePue Site

Collected: 06/06/2005

Account Number: 11594

Submitted: 06/13/2005 08:50 Reported: 06/30/2005 at 14:00

Discard: 07/31/2005

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

Dry

SS621 SDG#: DPU07-10

CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection	Units	Factor
				Limit		
00159	Mercury	7439-97-6	0.0837 J	0.106	mg/kg	1
01643	Aluminum	7429-90-5	10,400.	21.2	mg/kg	1
01650	Calcium	7440-70-2	3,900.	31.8	mg/kg	1
01654	Iron	7439-89-6	20,600.	21.2	mg/kg	1
01657	Magnesium	7439-95-4	2,210.	26.5	mg/kg	1
01662	Potassium	7440-09-7	1,640.	53.1	mg/kg	1
01667	Sodium	7440-23-5	41.7 J	106.	mg/kg	1
06925	Thallium	7440-28-0	N.D.	1.06	mg/kg	1
06935	Arsenic	7440-38-2	14.3	1.06	mg/kg	1
06936	Selenium	7782-49-2	1.09	1.06	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.37	mg/kg	1
06946	Barium	7440-39-3	2,490.	10.6	mg/kg	10
06947	Beryllium	7440-41-7	0.754	0.318	mg/kg	1
06949	Cadmium	7440-43-9	37.5	2.12	mg/kg	1
06951	Chromium	7440-47-3	17.4	4.25	mg/kg	1
06952	Cobalt	7440-48-4	8.22	5.31	mg/kg	1
06953	Copper	7440-50-8	52.0	4.25	mg/kg	1
06955	Lead	7439-92-1	326.	10.6	mg/kg	1
06958	Manganese	7439-96-5	788.	2.12	mg/kg	1
06961	Nickel	7440-02-0	17.5	5.31	mg/kg	1
06966	Silver	7440-22-4	1.25 J	2.12	mg/kg	1
06971	Vanadium	7440-62-2	28.5	2.12	mg/kg	1
06972	Zinc	7440-66-6	4,130.	10.6	mg/kg	10
00111	Moisture Code 086	n.a.	5.8	0.50	*	1
	"Moisture" represents the loss	in weight of t	he sample after of	oven drying at		
	103 - 105 degrees Celsius. The					
	as-received basis.					
00394	pH Code 067	n.a.	7.1	0.010	Std.	1
					Units	

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

Analysis

5523 Dilution

CAT No.

Analysis Name

Method

Trial# Date and Time

Analyst

Factor





Lancaster Laboratories Sample No. SW 4542518

OU4-SS-06-COMP3(1-6) Soil Sample

RAL DePue Site

Collected: 06/06/2005 Account Number: 11594

Submitted: 06/13/2005 08:50 Reported: 06/30/2005 at 14:00

Discard: 07/31/2005

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

SS631 SDG#: DPU07-11

				Dry		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.0704 J	0.108	mg/kg	1
01643	Aluminum	7429-90-5	11,700.	21.6	mg/kg	1
01650	Calcium	7440-70-2	7,940.	32.3	mg/kg	1
01654	Iron	7439-89-6	20,100.	21.6	mg/kg	1
01657	Magnesium	7439-95-4	4,840.	26.9	mg/kg	1
01662	Potassium	7440-09-7	1,960.	53.9	mg/kg	1
01667	Sodium	7440-23-5	50.4 J	108.	mg/kg	1
06925	Thallium	7440-28-0	1.29	1.08	mg/kg	1
06935	Arsenic	7440-38-2	13.6	1.08	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.08	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.47	mg/kg	1
06946	Barium	7440-39-3	2,740.	10.8	mg/kg	10
06947	Beryllium	7440-41-7	0.836	0.323	mg/kg	1
06949	Cadmium	7440-43-9	56.4	2.16	mg/kg	1
06951	Chromium	7440-47-3	19.1	4.31	mg/kg	1
06952	Cobalt	7440-48-4	8.64	5.39	mg/kg	1
06953	Copper	7440-50-8	60.4	4.31	mg/kg	1
06955	Lead	7439-92-1	281.	10.8	mg/kg	1
06958	Manganese	7439-96-5	711.	2.16	mg/kg	1
06961	Nickel	7440-02-0	18.7	5.39	mg/kg	1
06966	Silver	7440-22-4	1.26 J	2.16	mg/kg	1
06971	Vanadium	7440-62-2	30.4	2.16	mg/kg	1
06972	Zinc	7440-66-6	4,250.	10.8	mg/kg	10
00111	Moisture Code 086	n.a.	7.2	0.50	*	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of t moisture resul	he sample after t reported above	oven drying at is on an		
00394	pH Code 067	n.a.	7.1	0.010	Std. Units	1

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

Analysis

5025 Dilution



CAT

No.

Analysis Name

Method

Trial# Date and Time

Analyst

Factor



Lancaster Laboratories Sample No. SW 4542519

OU4-SS-06-COMP4(1-6) Soil Sample

RAL DePue Site

Collected: 06/07/2005 Account Number: 11594

Submitted: 06/13/2005 08:50 Reported: 06/30/2005 at 14:00

Discard: 07/31/2005

SS641 SDG#: DPU07-12

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

Dry

			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.125	0.106	mg/kg	1
01643	Aluminum	7429-90-5	13,300.	21.3	mg/kg	1
01650	Calcium	7440-70-2	9,200.	31.9	mg/kg	1
01654	Iron	7439-89-6	24,800.	21.3	mg/kg	1 .
01657	Magnesium	7439-95-4	4,580.	26.6	mg/kg	1
01662	Potassium	7440-09-7	1,950.	53.1	mg/kg	1
01667	Sodium	7440-23-5	127.	106.	mg/kg	. 1
06925	Thallium	7440-28-0	1.29	1.06	mg/kg	1
06935	Arsenic	7440-38-2	15.4	1.06	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.06	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.38	mg/kg	1
06946	Barium	7440-39-3	1,680.	10.6	mg/kg	5
06947	Beryllium	7440-41-7	1.15	0.319	mg/kg	1
06949	Cadmium	7440-43-9	38.4	2.13	mg/kg	1
06951	Chromium	7440-47-3	24.1	4.25	mg/kg	1
06952	Cobalt	7440-48-4	11.0	5.31	mg/kg	1
06953	Copper	7440-50-8	55.7	4.25	mg/kg	1
06955	Lead	7439-92-1	287.	10.6	mg/kg	1
06958	Manganese	7439-96-5	855.	2.13	mg/kg	1
06961	Nickel	7440-02-0	23.1	5.31	mg/kg	1
06966	Silver	7440-22-4	1.07 J	2.13	mg/kg	1
06971	Vanadium	7440-62-2	34.9	2.13	mg/kg	1
06972	Zinc	7440-66-6	2,960.	10.6	mg/kg	1
00111	Moisture Code 086	n.a.	5.9	0.50	*	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of t moisture resul	he sample after t reported above	oven drying at is on an		
00394	pH Code 067	n.a.	7.5	0.010	Std. Units	1

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

Analysis
Method Trial# Date and Time

Analyst

8827 Dilution Factor



Analysis Name

CAT

No.



Lancaster Laboratories Sample No. SW 4542520

OU4-SS-06-COMP5(6-12) Soil Sample

RAL DePue Site

Collected: 06/07/2005 Account Number: 11594

Submitted: 06/13/2005 08:50 Reported: 06/30/2005 at 14:00

6723 Towpath Road, Box 66 Discard: 07/31/2005 Syracuse NY 13214-0066

SS651 SDG#: DPU07-13

				DLY		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.0524 J	0.114	mg/kg	1
01643	Aluminum	7429-90-5	10,500.	22.8	mg/kg	1
01650	Calcium	7440-70-2	3,830.	34.2	mg/kg	1
01654	Iron	7439-89-6	26,400.	22.8	mg/kg	1
01657	Magnesium	7439-95-4	2,290.	28.5	mg/kg	1
01662	Potassium	7440-09-7	1,560.	57.1	mg/kg	1
01667	Sodium	7440-23-5	135.	114.	mg/kg	1
06925	Thallium	7440-28-0	1.23	1.14	mg/kg	1
06935	Arsenic	7440-38-2	13.0	1.14	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.14	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.85	mg/kg	1
06946	Barium	7440-39-3	252.	11.4	mg/kg	1
06947	Beryllium	7440-41-7	1.06	0.342	mg/kg	1
06949	Cadmium	7440-43-9	16.8	2.28	mg/kg	1
06951	Chromium	7440-47-3	21.6	4.57	mg/kg	1
06952	Cobalt	7440-48-4	7.48	5.71	mg/kg	1
06953	Copper	7440-50-8	34.5	4.57	mg/kg	1
06955	Lead	7439-92-1	134.	11.4	mg/kg	1
06958	Manganese	7439-96-5	628.	2.28	mg/kg	1
06961	Nickel	7440-02-0	20.7	5.71	mg/kg	1
06966	Silver	7440-22-4	0.326 J	2.28	mg/kg	1
06971	Vanadium	7440-62-2	31.2	2.28	mg/kg	1
06972	Zinc	7440-66-6	2,160.	11.4	mg/kg	1
00111	Moisture Code 086	n.a.	12.4	0.50	8	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of t moisture resul	he sample after t reported abov	oven drying at we is on an		
00394	pH Code 067	n.a.	7.3	0.010	Std. Units	1
	The nH was performed on a 1.1	-1 (25	-6	25 1		

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

Analysis

Blasland, Bouck & Lee

Dry

Dilution

CAT No.

Analysis Name

Method

Trial# Date and Time

Analyst

Factor



8829



Lancaster Laboratories Sample No. SW 4542521

OU4-SS-07-COMP1(1-6) Soil Sample

RAL DePue Site

Collected: 06/07/2005

Submitted: 06/13/2005 08:50 Reported: 06/30/2005 at 14:00

Discard: 07/31/2005

SS711 SDG#: DPU07-14

Account Number: 11594

Dry

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

				1		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.114	0.105	mg/kg	1
01643	Aluminum	7429-90-5	9,660.	21.1	mg/kg	1
01650	Calcium	7440-70-2	13,600.	31.6	mg/kg	1
01654	Iron	7439-89-6	18,800.	21.1	mg/kg	1
01657	Magnesium	7439-95-4	6,790.	26.4	mg/kg	1
01662	Potassium	7440-09-7	1,930.	52.7	mg/kg	1
01667	Sodium	7440-23-5	135.	105.	mg/kg	1
06925	Thallium	7440-28-0	1.20	1.05	mg/kg	1
06935	Arsenic	7440-38-2	14.3	1.05	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.05	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.33	mg/kg	1
06946	Barium	7440-39-3	6,030.	10.5	mg/kg	10
06947	Beryllium	7440-41-7	1.20	0.316	mg/kg	1
06949	Cadmium	7440-43-9	42.3	2.11	mg/kg	1
06951	Chromium	7440-47-3	16.8	4.22	mg/kg	1
06952	Cobalt	7440-48-4	8.19	5.27	mg/kg	1
06953	Copper	7440-50-8	69.6 4	4.22	mg/kg	1
06955	Lead	7439-92-1	404.	10.5	mg/kg	1
06958	Manganese	7439-96-5	586.	2.11	mg/kg	1
06961	Nickel	7440-02-0	19.0	5.27	mg/kg	1
06966	Silver	7440-22-4	1.77 J	2.11	mg/kg	1
06971	Vanadium	7440-62-2	26.8	2.11	mg/kg	1
06972	Zinc	7440-66-6	4,100.	10.5	mg/kg	10
00111	Moisture Code 086	n.a.	5.2	0.50	*	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of to moisture resul	he sample after	oven drying at		
00394	pH Code 067	n.a.	7.2	0.010	Std. Units	1
	m>	Contract to the Contract of th	and the second of the second o	Control Control		

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Method

Laboratory Chronicle

Analysis

Trial# Date and Time

Analyst

9931 Dilution Factor



Analysis Name

CAT

No.



Lancaster Laboratories Sample No. SW 4542522

OU4-SS-07-COMP2(6-12) Soil Sample

RAL DePue Site

Collected: 06/07/2005

Submitted: 06/13/2005 08:50 Reported: 06/30/2005 at 14:00

Discard: 07/31/2005

SS721 SDG#: DPU07-15

Account Number: 11594

Dry

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

				Dry		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.102 J	0.105	mg/kg	1
01643	Aluminum	7429-90-5	10,300.	21.0	mg/kg	1
01650	Calcium	7440-70-2	11,600.	31.5	mg/kg	1
01654	Iron	7439-89-6	17,100.	21.0	mg/kg	1
01657	Magnesium	7439-95-4	6,810.	26.3	mg/kg	1
01662	Potassium	7440-09-7	1,880.	52.6	mg/kg	1
01667	Sodium	7440-23-5	135.	105.	mg/kg	1
06925	Thallium	7440-28-0	1.10	1.05	mg/kg	1
06935	Arsenic	7440-38-2	9.56	1.05	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.05	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.31	mg/kg	1
06946	Barium	7440-39-3	1,090.	10.5	mq/kq	5
06947	Beryllium	7440-41-7	0.875	0.315	mg/kg	1
06949	Cadmium	7440-43-9	6.39	2.10	mg/kg	1
06951	Chromium	7440-47-3	17.0	4.21	mg/kg	1
06952	Cobalt	7440-48-4	6.86	5.26	mg/kg	1
06953	Copper	7440-50-8	29.7	4.21	mg/kg	1
06955	Lead	7439-92-1	182.	10.5	mg/kg	1
06958	Manganese	7439-96-5	472.	2.10	mg/kg	1
06961	Nickel	7440-02-0	17.7	5.26	mg/kg	1
06966	Silver	7440-22-4	0.652 J	2.10	mg/kg	1
06971	Vanadium	7440-62-2	26.5	2.10	mg/kg	1
06972	Zinc	7440-66-6	1,120.	10.5	mg/kg	1
00111	Moisture Code 086	n.a.	4.9	0.50	8	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of t moisture resul	he sample after t reported abov	r oven drving at		-
00394	pH Code 067	n.a.	7.9	0.010	Std. Units	1
	The nH was performed on a 1.1	Almer /AF		0.0 1		

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Method

Laboratory Chronicle

Analysis

Trial# Date and Time

Analyst

9933 Dilution



Analysis Name

CAT

No.



Lancaster Laboratories Sample No. SW 4542523

OU4-SS-07-COMP4(1-6) Soil Sample

RAL DePue Site

Collected: 06/07/2005

Submitted: 06/13/2005 08:50 Reported: 06/30/2005 at 14:00

Discard: 07/31/2005

SS741 SDG#: DPU07-16

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

No. Analysis Name CAS Number Result Detection Limit 00159 Mercury 7419-97-6 0.0946 J 0.123 Mg/kg 1 01643 Aluminum 7429-90-5 8.550. 24.5 Mg/kg 1 101650 Calcium 7440-70-2 39,500. 36.8 Mg/kg 1 101657 Magnesium 7439-95-4 11,200. 30.7 Mg/kg 1 101662 Potassium 7440-09-7 2,320. 61.3 Mg/kg 1 101667 Sodium 7440-23-5 125. 123. Mg/kg 1 106935 Arsenic 7440-28-0 N.D. 1.23 Mg/kg 1 106935 Arsenic 7440-38-2 11.2 1.23 Mg/kg 1 106936 Selenium 7782-49-2 N.D. 1.23 Mg/kg 1 106944 Antimony 7440-36-0 N.D. 7366 Mg/kg 1 106944 Antimony 7440-39-3 4,760. 12.3 Mg/kg 1 106946 Barium 7440-41-7 0.668 0.368 Mg/kg 1 06951 Chromium 7440-47-3 18.3 4.91 Mg/kg 1 106952 Cobalt 7440-48-4 6.55 6.13 Mg/kg 1 106953 Copper 7440-48-4 6.55 6.13 Mg/kg 1 106955 Cobalt 7440-62-2 22.7 2.45 Mg/kg 1 106971 Vanadium 7440-62-2 22.7 2.45 Mg/kg 1 106972 Vanadium 7440-62-2 22.7 2.45 Mg/kg 1 106971 Vanadium 7440-62-0 0.50 No. 0.	CAT				Dry		***************************************
Name		3 1 1 1 1		Dry	Method		Dilution
Name		5 C C C C C C C C C C C C C C C C C C C	CAS Number	Result		Units	Factor
Ol650 Calcium			7439-97-6	0.0946 J	0.123	mg/kg	1
101654 Tron	01643	Aluminum	7429-90-5	8,550.	24.5	mg/kg	1
Name	01650	Calcium	7440-70-2	39,500.	36.8	mg/kg	1
1662 Potassium 7440-09-7 2,320. 61.3 mg/kg 1	01654	Iron	7439-89-6	14,800.	24.5	mg/kg	1
125. 123. mg/kg 1	01657	Magnesium	7439-95-4	11,200.	30.7	mg/kg	1
06925 Thallium 7440-28-0 N.D. 1.23 mg/kg 1 06935 Arsenic 7440-38-2 11.2 1.23 mg/kg 1 06936 Selenium 7782-49-2 N.D. 1.23 mg/kg 1 06944 Antimony 7440-36-0 N.D. 7.36 mg/kg 1 06947 Barium 7440-39-3 4,760. 12.3 mg/kg 1 06947 Beryllium 7440-41-7 0.668 0.368 mg/kg 1 06949 Cadmium 7440-41-7 0.668 0.368 mg/kg 1 06951 Chromium 7440-47-3 18.3 4.91 mg/kg 1 06952 Cobalt 7440-48-4 6.55 6.13 mg/kg 1 06953 Copper 7440-50-8 63.2 4.91 mg/kg 1 06955 Lead 7439-92-1 265 12.3 mg/kg 1 06961 Nickel	01662	Potassium	7440-09-7	2,320.	61.3	mg/kg	1
06935 Arsenic 7440-18-2 11.2 1.23 mg/kg 1 06936 Selenium 7782-49-2 N.D. 1.23 mg/kg 1 06944 Antimony 7440-36-0 N.D. 7.36 mg/kg 1 06946 Barium 7440-39-3 4,760. 12.3 mg/kg 1 06947 Beryllium 7440-41-7 0.668 0.368 mg/kg 1 06949 Cadmium 7440-41-7 1.83 4.91 mg/kg 1 06951 Chromium 7440-47-3 18.3 4.91 mg/kg 1 06952 Cobalt 7440-48-4 6.55 6.13 mg/kg 1 06953 Copper 7440-50-8 63.2 4.91 mg/kg 1 06955 Lead 7439-92-1 265. 12.3 mg/kg 1 06958 Manganese 7439-96-5 516. 2.45 mg/kg 1 06961 Nickel 7440-02-0 15.8 6.13 mg/kg 1 06966 Silver 7440-62-2 22.7 2.45 mg/kg 1 06971 Vanadium 7440-62-2 22.7 2.45 mg/kg 1 06972 Zinc 7440-66-6 2,570. 12.3 mg/kg 1 06973 Vanadium 7440-62-2 22.7 2.45 mg/kg 1 06974 Vanadium 7440-62-2 22.7 2.45 mg/kg 1 06975 Zinc 7440-66-6 2,570. 12.3 mg/kg 1 0740-66-6 2,570. 12.3 mg/kg 1	01667	Sodium	7440-23-5	125.	123.	mg/kg	1
06936 Selenium 7782-49-2 N.D. 1.23 mg/kg 1 06944 Antimony 7440-36-0 N.D. 7.36 mg/kg 1 06946 Barium 7440-39-3 4,760. 12.3 mg/kg 1 06947 Beryllium 7440-41-7 0.668 0.368 mg/kg 1 06949 Cadmium 7440-43-9 31.7 2.45 mg/kg 1 06951 Chromium 7440-47-3 18.3 4.91 mg/kg 1 06952 Cobalt 7440-48-4 6.55 6.13 mg/kg 1 06953 Copper 7440-50-8 63.2 4.91 mg/kg 1 06958 Manganese 7439-96-5 516. 2.45 mg/kg 1 06966 Silver 7440-02-0 15.8 6.13 mg/kg 1 06966 Silver 7440-02-0 15.8 6.13 mg/kg 1 06971 Vanadium 7440-62-2 22.7 2.45 mg/kg 1 06972 Zinc 7440-66-6 2,570. 12.3 mg/kg 1 06972 Zinc 7440-66-6 2,570. 12.3 mg/kg 1 06972 Zinc 7440-66-6 2,570. 12.3 mg/kg 1 06973 Moisture Code 086 n.a. 18.5 0.50 % 1 06974 Moisture Code 086 n.a. 18.5 0.50 % 1 07800394 PH Code 067 n.a. 6.9 0.010 Std. 1	06925	Thallium	7440-28-0	N.D.	1.23	mg/kg	1
06936 Selenium 7782-49-2 N.D. 1.23 mg/kg 1 06944 Antimony 7440-36-0 N.D. 7.36 mg/kg 1 06946 Barium 7440-39-3 4,760. 12.3 mg/kg 10 06947 Beryllium 7440-41-7 0.668 0.368 mg/kg 1 06949 Cadmium 7440-43-9 31.7 2.45 mg/kg 1 06951 Chromium 7440-47-3 18.3 4.91 mg/kg 1 06952 Cobalt 7440-48-4 6.55 6.13 mg/kg 1 06952 Copper 7440-50-8 63.2 4.91 mg/kg 1 06955 Lead 7439-92-1 265 12.3 mg/kg 1 06958 Manganese 7439-96-5 516 2.45 mg/kg 1 0696 Silver 7440-02-0 15.8 6.13 mg/kg 1 06971 Vanadium	06935	Arsenic	7440-38-2	11.2	1.23	mg/kg	1
06946 Barium 7440-39-3 4,760. 12.3 mg/kg 10 06947 Beryllium 7440-41-7 0.668 0.368 mg/kg 1 06949 Cadmium 7440-43-9 31.7 2.45 mg/kg 1 06951 Chromium 7440-47-3 18.3 4.91 mg/kg 1 06952 Cobalt 7440-48-4 6.55 6.13 mg/kg 1 06953 Copper 7440-50-8 63.2 4.91 mg/kg 1 06955 Lead 7439-92-1 265. 12.3 mg/kg 1 06958 Manganese 7439-96-5 516. 2.45 mg/kg 1 06966 Silver 7440-02-0 15.8 6.13 mg/kg 1 06967 Vanadium 7440-62-2 22.7 2.45 mg/kg 1 06972 Zinc 7440-66-6 2,570. 12.3 mg/kg 1 06972 Zinc 7440-66-6 2,570. 12.3 mg/kg 1 06972 Zinc 7440-66-6 2,570. 12.3 mg/kg 1 07011 Moisture Code 086 n.a. 18.5 0.50 % 1 07011 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.	06936	Selenium	7782-49-2	N.D.	1.23		1
06947 Beryllium 7440-41-7 0.668 0.368 mg/kg 1 06949 Cadmium 7440-43-9 31.7 2.45 mg/kg 1 06951 Chromium 7440-47-3 18.3 4.91 mg/kg 1 06952 Cobalt 7440-48-4 6.55 6.13 mg/kg 1 06953 Copper 7440-50-8 63.2 4.91 mg/kg 1 06955 Lead 7439-92-1 265. 12.3 mg/kg 1 06958 Manganese 7439-96-5 516. 2.45 mg/kg 1 06968 Nickel 7440-02-0 15.8 6.13 mg/kg 1 06966 Silver 7440-22-4 1.29 J 2.45 mg/kg 1 06971 Vanadium 7440-62-2 22.7 2.45 mg/kg 1 06972 Zinc 7440-66-6 2,570. 12.3 mg/kg 1 06972 Zinc 7440-66-6 2,570. 12.3 mg/kg 1 06111 Moisture Code 086 n.a. 18.5 0.50 % 1 06303 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.	06944	Antimony	7440-36-0	N.D.	7.36	mg/kg	1
06947 Beryllium 7440-41-7 0.668 0.368 mg/kg 1 06949 Cadmium 7440-43-9 31.7 2.45 mg/kg 1 06951 Chromium 7440-47-3 18.3 4.91 mg/kg 1 06952 Cobalt 7440-48-4 6.55 6.13 mg/kg 1 06953 Copper 7440-50-8 63.2 4.91 mg/kg 1 06955 Lead 7439-92-1 265 12.3 mg/kg 1 06958 Manganese 7439-96-5 516 2.45 mg/kg 1 06961 Nickel 7440-02-0 15.8 6.13 mg/kg 1 06966 Silver 7440-22-4 1.29 J 2.45 mg/kg 1 06971 Vanadium 7440-66-6 2.570 12.3 mg/kg 1 06972 Zinc 7440-66-6 2.570 12.3 mg/kg 1 0111 Moisture Code 086 n.a 18.5 0.50 % 1 moisture	06946	Barium	7440-39-3	4,760.	12.3	mg/kg	10
06951 Chromium 7440-47-3 18.3 4.91 mg/kg 1 06952 Cobalt 7440-48-4 6.55 6.13 mg/kg 1 06953 Copper 7440-50-8 63.2 4.91 mg/kg 1 06955 Lead 7439-92-1 265. 12.3 mg/kg 1 06958 Manganese 7439-96-5 516. 2.45 mg/kg 1 06961 Nickel 7440-02-0 15.8 6.13 mg/kg 1 06966 Silver 7440-22-4 1.29 J 2.45 mg/kg 1 06971 Vanadium 7440-62-2 22.7 2.45 mg/kg 1 06972 Zinc 7440-66-6 2,570. 12.3 mg/kg 1 06972 Zinc 7440-66-6 2,570. 12.3 mg/kg 1 00111 Moisture Code 086 n.a. 18.5 0.50 % 1 "Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.	06947	Beryllium	7440-41-7		0.368		1
06951 Chromium 7440-47-3 18.3 4.91 mg/kg 1 06952 Cobalt 7440-48-4 6.55 6.13 mg/kg 1 06953 Copper 7440-50-8 63.2 4.91 mg/kg 1 06955 Lead 7439-92-1 265 12.3 mg/kg 1 06958 Manganese 7439-96-5 516 2.45 mg/kg 1 06961 Nickel 7440-02-0 15.8 6.13 mg/kg 1 06966 Silver 7440-22-4 1.29 J 2.45 mg/kg 1 06971 Vanadium 7440-66-2 22.7 2.45 mg/kg 1 06972 Zinc 7440-66-6 2,570 12.3 mg/kg 1 00111 Moisture Code 086 n.a. 18.5 0.50 % 1 "Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis. 6.9 0.010<	06949	Cadmium	7440-43-9	31.7	2.45	mg/kg	1
06952 Cobalt 7440-48-4 6.55 6.13 mg/kg 1 06953 Copper 7440-50-8 63.2 4.91 mg/kg 1 06955 Lead 7439-92-1 265. 12.3 mg/kg 1 06958 Manganese 7439-96-5 516. 2.45 mg/kg 1 06961 Nickel 7440-02-0 15.8 6.13 mg/kg 1 06966 Silver 7440-22-4 1.29 J 2.45 mg/kg 1 06971 Vanadium 7440-66-2 22.7 2.45 mg/kg 1 06972 Zinc 7440-66-6 2.570. 12.3 mg/kg 1 00111 Moisture Code 086 n.a. 18.5 0.50 % 1 "Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis. 6.9 0.010 Std. 1	06951	Chromium	7440-47-3	18.3	4.91		1
06953 Copper 7440-50-8 63.2 4.91 mg/kg 1 06955 Lead 7439-92-1 265. 12.3 mg/kg 1 06958 Manganese 7439-96-5 516. 2.45 mg/kg 1 06961 Nickel 7440-02-0 15.8 6.13 mg/kg 1 06966 Silver 7440-22-4 1.29 J 2.45 mg/kg 1 06971 Vanadium 7440-66-2 22.7 2.45 mg/kg 1 06972 Zinc 7440-66-6 2,570. 12.3 mg/kg 1 00111 Moisture Code 086 n.a. 18.5 0.50 % 1 "Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis. 5.9 0.010 Std. 1	06952	Cobalt	7440-48-4	6.55	6.13	mg/kg	1
06955 Lead 7439-92-1 265. 12.3 mg/kg 1 06958 Manganese 7439-96-5 516. 2.45 mg/kg 1 06961 Nickel 7440-02-0 15.8 6.13 mg/kg 1 06966 Silver 7440-02-4 1.29 J 2.45 mg/kg 1 06971 Vanadium 7440-66-2 22.7 2.45 mg/kg 1 06972 Zinc 7440-66-6 2,570. 12.3 mg/kg 1 00111 Moisture Code 086 n.a. 18.5 0.50 % 1 "Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis. Std. 1	06953	Copper	7440-50-8	63.2	4.91	mg/kg	1
06958 Manganese 7439-96-5 516. 2.45 mg/kg 1 06961 Nickel 7440-02-0 15.8 6.13 mg/kg 1 06966 Silver 7440-22-4 1.29 J 2.45 mg/kg 1 06971 Vanadium 7440-62-2 22.7 2.45 mg/kg 1 06972 Zinc 7440-66-6 2,570. 12.3 mg/kg 1 00111 Moisture Code 086 n.a. 18.5 0.50 % 1 "Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis. Std. 1 00394 PH Code 067 n.a. 6.9 0.010 Std. 1	06955	Lead	7439-92-1	265.	12.3		1
06961 Nickel 7440-02-0 15.8 6.13 mg/kg 1 06966 Silver 7440-22-4 1.29 J 2.45 mg/kg 1 06971 Vanadium 7440-62-2 22.7 2.45 mg/kg 1 06972 Zinc 7440-66-6 2.570. 12.3 mg/kg 1 00111 Moisture Code 086 n.a. 18.5 0.50 % 1 "Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis. 00394 pH Code 067 n.a. 6.9 0.010 Std. 1	06958	Manganese	7439-96-5	516.	2.45	-	
06966 Silver 7440-22-4 1.29 J 2.45 mg/kg 1 06971 Vanadium 7440-62-2 22.7 2.45 mg/kg 1 06972 Zinc 7440-66-6 2.570. 12.3 mg/kg 1 00111 Moisture Code 086 n.a. 18.5 0.50 % 1 "Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis. 00394 pH Code 067 n.a. 6.9 0.010 Std. 1	06961	Nickel	7440-02-0	15.8	6.13		1
06971 Vanadium 7440-62-2 22.7 2.45 mg/kg 1 06972 Zinc 7440-66-6 2,570. 12.3 mg/kg 1 00111 Moisture Code 086 n.a. 18.5 0.50 % 1 "Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis. 00394 pH Code 067 n.a. 6.9 0.010 Std. 1	06966	Silver	7440-22-4	1.29 J	2.45		1
06972 Zinc 7440-66-6 2,570. 12.3 mg/kg 1 00111 Moisture Code 086 n.a. 18.5 0.50 % 1 "Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis. 00394 pH Code 067 n.a. 6.9 0.010 Std. 1	06971	Vanadium	7440-62-2	22.7	2.45		1
00111 Moisture Code 086 n.a. 18.5 0.50 % 1 "Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis. 00394 pH Code 067 n.a. 6.9 0.010 Std. 1	06972	Zinc	7440-66-6	2,570.	12.3		
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis. One of the sample after oven drying at reported above is on an as-received basis.	00111	Moisture Code 086	n.a.	18.5			
1.a. 0.9 0.010 Std. 1		103 - 105 degrees Celsius. The	in weight of t moisture resul	he sample after t reported abov	oven drying at e is on an		
Units	00394	pH Code 067	n.a.	6.9	0.010	Std. Units	1

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

Analysis Method

Trial# Date and Time Analyst

8835 Dilution Factor



Analysis Name

CAT

No.



Page 1 of 2

Lancaster Laboratories Sample No. SW 4542524

OU4-SS-07-COMP5(1-6) Soil Sample

RAL DePue Site

Collected:06/07/2005 Account Number: 11594

Submitted: 06/13/2005 08:50 Reported: 06/30/2005 at 14:00

Discard: 07/31/2005

SS751 SDG#: DPU07-17*

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

CAT				Dry		-1-
No.	Analysis Name		Dry	Method	1025 1420	Dilution
110.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.107 J	0.114	mg/kg	1
01643	Aluminum	7429-90-5	10,400.	22.7	mg/kg	1
01650	Calcium	7440-70-2	13,900.	34.1	mg/kg	1
01654	Iron	7439-89-6	16,300.	22.7	mg/kg	1
01657	Magnesium	7439-95-4	7,590.	28.4	mg/kg	1
01662	Potassium	7440-09-7	2,030.	56.8	mg/kg	1
01667	Sodium	7440-23-5	109. J	114.	mg/kg	. 1
06925	Thallium	7440-28-0	1.08 J	1.14	mg/kg	1
06935	Arsenic	7440-38-2	10.6	1.14	mg/kg	1
06936	Selenium	7782-49-2	1.16	1.14	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.81	mg/kg	1
06946	Barium	7440-39-3	3,570.	11.4	mg/kg	5
06947	Beryllium	7440-41-7	0.725	0.341	mg/kg	1
06949	Cadmium	7440-43-9	45.3	2.27	mg/kg	1
06951	Chromium	7440-47-3	19.5	4.54	mg/kg	1
06952	Cobalt	7440-48-4	7.42	5.68	mg/kg	1
06953	Copper	7440-50-8	52.1	4.54	mg/kg	1
06955	Lead	7439-92-1	271.	11.4	mg/kg	1
06958	Manganese	7439-96-5	503.	2.27	mg/kg	1
06961	Nickel	7440-02-0	20.2	5.68	mg/kg	1
06966	Silver	7440-22-4	1.04 J	2.27	mg/kg	1
06971	Vanadium	7440-62-2	26.3	2.27	mg/kg	1
06972	Zinc	7440-66-6	2,750.	11.4	mg/kg	1
00111	Moisture Code 086	n.a.	11.9	0.50	*	1
	"Moisture" represents the loss	in weight of t	he sample after	oven drving at	-	-
	103 - 105 degrees Celsius. The	moisture resul	t reported above	is on an		
0020:	as-received basis.					
00394	pH Code 067	n.a.	7.1	0.010	Std.	1
	The DU was performed as a 1 1	-1		0 121	Units	

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Method

Laboratory Chronicle

Analysis

Trial# Date and Time Analyst

9337 Dilution Factor



Analysis Name

CAT

No.

Lancaster Laboratories, Inc. 2425 New Holland Pike PO Box 12425 Lancaster, PA 17605-2425 717-656-2300 Fax: 717-656-2681 Chain of Custody



Syracuse, NY 13214-0066

(315) 446-9120

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

11594/947125 /4542508-24

COC Number Remarks AUXILIAC ONLY 4 PARMIC ONCY ABOUT ONLY ACRESIC ONLY ACKENIC OPLY DATE TIME MATRIX COMP. GRAB Container 1 2 3 4 5 6 7 HOLD Requested Analyses × × RAL DePue Site 80 80 80 SO 80 SO 80 6/6/2005 0:00 8/8/2005 0:00 6/8/2005 0:00 6/6/2005 0:00 6/8/2005 0:00 6/8/2005 0:00 6/6/2005 0:00 6/8/2005 0:00 PROJECT NAME OU4-SS-05-COMP1(1-6) OU4-SS-05-COMP1(0-1) OU4-SS-05-COMP2(1-8) OUM-SS-05-COMP2(6-12) OU4-SS-05-COMP3(8-12) OU4-SS-05-COMP2(0-1) OU4-SS-05-COMP3(1-6) OU4-SS-05-COMP4(0-1) SAMPLE ID SAMPLERS: (Signifure) PROJ. NO.

Requested Analyses	Special Instructions/ Comments:		
1. Metala	T	Special QA	R Special QAQC Instructions
2. pH	T		
3,		Laboratory Information and Board	
4.		The Receipt	
The state of the s	Lab reality. Lancaster Laboratories		
0.	Shipping Tracking #	Cooler packed with ice	Sumple Receipt:
G.	Specify Tumaming Regularisation		
7.		Cooler custody seal intact	Candition/Coaler Temp:
Relinguished by: (Slonature)			
6/005/	received by: (3/gnature)	Reunquished by: (Signature) A DATE	TIME Received by: (Signature)
1	Deschard of 101	/	/
!	(a)manual parament	Relinquished by (Signature) DATE	TIME Received by: (Signature)
Relinquished by: (Signature) DATE TIME	Rocehard Fur (Richards		/
_	(almanito) of possession	Reinquished by: (8ignature)	TIME Repolyed by: (Signature)
		/ XIE/07 /	11/19/11/19/21



Syracuse, NY 13214-0066

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

11594/947125/4542508-24

8 COC Number Remarks
 DATE
 TIME
 MATRIX
 COMP.
 GRAB
 Containers
 1
 2
 3
 4
 6
 7
 HOLD

 6/6/2005
 0:00
 SO
 SO
 1
 X
 X
 X
 X
 X
 A
 B
 6
 7
 HOLD
 Requested Analyses × RAL DePue Sita So 80 80 80 6/8/2005 0:00 6/8/2005 0:00 8/6/2005 0:00 6/7/2005 0:00 8/7/2005 0:00 PROJECT NAME OU4-SS-06-COMP2(1-6) OU4-SS-06-COMP5(6-12) OU4-SS-08-COMP1(1-8) OU4-SS-08-COMP3(1-8) OU4-SS-08-COMP4(1-6) SAMPLE ID SAMPLERS: (Signifure) 85534 (315) 446-9120 PROJ. NO.

1. Mataka		Special (natructions/ Comments:	5	
			ed c III	E special dAdd Instructions
2. pH				
3.			Laboratory Information and Receipt	ecelot
		Lab Name: Lancaster Laboratorias		- 1-
5.		10	Cooler packed with ice	Sample Receipt:
		Specific T. Commercial Co.		
		openy tomaround Requirements:	[84] Cooler custody seal intact	Condition/Cooler Temp:
Relinquished by: (Signature)	DATE TIME	-		
	_	by: (Signature)	(Relinquished by: (Signature)	DATE TIME Received by: (Signature)
Relinquished by: (Signature) DA	TIME	Received by (Signature)		1
/5		la maria	remaind the Dr. (Signature)	DATE TIME Received by (Signature)
Relinquished by: (Signature) DA	DATE TIME	Received by (Stonethank		/
/	_	(amman day) . Co	Reinquished by: (Signature)	DATE TIME (Separature)



CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

6723 Towpath Rd

Byracuse, NY 13214-0068 (315) 446-9120

11594/947125/4542508-24

COC Number Remarks
 DATE
 TIME
 MATRIX
 COMP.
 GRAB
 Containers
 1
 2
 3
 4
 6
 7
 HOLD

 9/1/2005
 0:00
 SO
 1
 X
 X
 X
 X
 HOLD
 Requested Analyses RAL DePue Site SO 80 SO 6/7/2005 0:00 8/7/2005 0:00 8/7/2005 0:00 8/7/2005 0:00 PROJECT NAME SAMPLE ID OU4-SS-07-COMP1(1-6) OU4-SS-07-COMP2(8-12) OU4-SS-07-COMP4(1-8) OU4-SS-07-COMP5(1-6) SAMPLERS: (Signifure) 85534 PROJ. NO.

Lab Name: Lancaster Laboratories Shipping Tracking # Specify Turnaround Requirements: Specify Time Received by: (Signature) DATE TIME Received by: (Signature) BATE TIME Received by: (Signature) BATE TIME Received by: (Signature) BATE TIME Received by: (Signature)	Requested Analyses	Special Instructions/ Comments:	O special O	B Special OA/OC Instructions
Laboratory Information and Receipt Lab Name: Lancaster Laboratories Shipping Tracking # Specify Turnaround Requirements: DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) Refinquished by: (Signature) DATE TIME Received by: (Signature) Refinquished by: (Signature) DATE DATE TIME Received by: (Signature) Refinquished by: (Signature) DATE	1. Motals	_		
Lab Name: Lancaster Laboratories Shipping Tracking # Specify Turnaround Requirements: DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) BATE TIME Received by: (Signature) Refinquished by: (Signature) Refinquished by: (Signature) Refinquished by: (Signature) DATE DATE PATE PATE PATE Refinquished by: (Signature) Refinquished by: (Signature) DATE DATE DATE	2. pH			
Lab Name: Lencaster Laboratories Shipping Tracking # Specify Tumaround Requirements: Material Material	3.		Laboratory Information and Receipt	
Specify Tumaround Requirements: DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) Refinquished by: (Signature) Refinquished by: (Signature) DATE TIME Received by: (Signature) Refinquished by: (Signature) DATE TIME Received by: (Signature)			and a	
DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) Refinquished by: (Signature) DATE TIME Received by: (Signature) Refinquished by: (Signature) DATE DATE DATE DATE DATE		Shipping Tracking #	Cooler packed with Ice	
DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) Refinquished by: (Signature) DATE TIME Received by: (Signature) Refinquished by: (Signature) DATE DATE DATE		Specify Tumaround Requirements:		Constitution of the second
DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) Refinquished by: (Signature) DATE TIME Received by: (Signature) Refinquished by: (Signature) Refinquished by: (Signature)			. (78) Cooler custody seal intact	Consider temp.
DATE TIME Received by: (Signature) Refinquished by: (Signature) Refinquished by: (Signature) Refinquished by: (Signature)	DATE /	by: (Signature)		TIME "Received by: (Signature)
BAIE TIME Received by: (Signature) Relinquished by: (Signature) DAFE TIME	DATE	fgr: (Signature)		
	BATE TIME	by: (Signatura)		11 -

DATA REVIEW FOR

DEPUE REMOVAL ACTION LIMIT (RAL) ASSESSMENT DEPUE, ILLINOIS

SDG# DPU08

METALS ANALYSES

Analyses performed by:

Lancaster Laboratories, Inc. Lancaster, Pennsylvania

Review performed by:



Blasland, Bouck & Lee, Inc. Syracuse, New York <u>Summary</u> The following is an assessment of the data package for SDG# DPU08 for sampling from the RAL DePue Site. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample			Ana	alysis		
			Date	VOA	svoc	РСВ	MET	PEST	MISC
OU4-SS-08-COMP2(0-1)	4544590	Soil	6/8/2005				X		
OU4-SS-08-COMP3(0-1)	4544591	Soil	6/8/2005				X		
OU4-SS-08-COMP3(1-6)	4544592	Soil	6/8/2005				X		
OU4-SS-08-COMP4(0-1)	4544593	Soil	6/8/2005				X		
OU4-SS-09-COMP1(1-6)	4544594	Soil	6/8/2005				X		
OU4-SS-09-COMP2(1-6)	4544595	Soil	6/8/2005				X		
OU4-SS-09-COMP3(6-12)	4544596	Soil	6/8/2005				X		
OU4-SS-09-COMP4(1-6)	4544597	Soil	6/9/2005				X		
OU4-SS-09-COMP5(1-6)	4544598	Soil	6/9/2005				X		
OU4-SS-10-10(1-6)	4544599	Soil	6/9/2005				X		
OU4-SS-10-COMP1(0-1)	4544600	Soil	6/9/2005				X		
OU4-SS-10-COMP2(1-6)	4544601	Soil	6/9/2005				X		
OU4-SS-11-COMP1(1-6)	4544602	Soil	6/9/2005				X		
OU4-SS-11-COMP2(0-1)	4544603	Soil	6/9/2005				X		
OU4-SS-11-COMP3(12-18)	4544604	Soil	6/9/2005				Χ¹		
OU4-SS-14-12(1-6)	4551776	Soil	6/14/2005				X		
OU4-SS-14-18(1-6)	4551777	Soil	6/14/2005				X		
OU4-SS-14-19(0-1)	4551778	Soil	6/14/2005				Χ¹		
OU4-SS-15-17(1-6)	4551782	Soil	6/14/2005				X		
OU4-SS-DUP-72	4551783	Soil	6/14/2005				X		
			Ì						

¹ MS/MSD analysis performed on sample.

² Sample ID OU4-SS-DUP-7 is the field duplicate of parent sample OU4-SS-14-12(1-6).

METALS ANALYSES

Introduction

Analyses were performed according to USEPA 6000/7000. Data were reviewed in accordance with USEPA National Functional Guidelines of February 1994.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

Concentration (C) qualifiers:

- U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.
- B The reported value was obtained from a reading less than the contract required detection limit (CRDL) but greater than or equal to the instrument detection limit (IDL).

Quantitation (Q) qualifiers:

- E The reported value is estimated due to the presence of interference.
- N Spiked sample recovery not within control limits.
- * Duplicate analysis not within control limits.

Validation qualifiers:

- J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.
- UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for metals analyses is 180 days and for mercury is 28 days from sample receipt. Samples are required to be preserved at 4°C.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks, i.e., method, field, or rinse blanks, are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks (including initial and continuing calibration blanks and preparation blanks) measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

Several analytes were detected above the method detection limit in the method blank and/or the calibration blank. All associated sample results were greater than the blank action limit; therefore, none of the data were qualified.

Zinc was detected above the method detection limit in the associated rinse blank (RB060805-1) collected on 6/8/05 and found in SDG#DPU05. All associated sample results were greater than the blank action limit; therefore, none of the data were qualified.

Manganese was detected above the method detection limit in the associated rinse blank (RB060905-2) collected on 6/9/05 and found in SDG#DPU05. All associated sample results were greater than the blank action limit; therefore, none of the data were qualified.

Calcium and Potassium were detected above the method detection limit in the associated rinse blank (RB061405-1) collected on 6/14/05 and found in SDG#DPU10. All associated sample results were greater than the blank action limit; therefore, none of the data were qualified

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument continuing performance is satisfactory.

3.1 Initial Calibration

The correct number and type of standards were analyzed and all initial calibration verification standard recoveries were within control limits.

3.2 Continuing Calibration

All continuing calibration verification standard recoveries were within control limits.

3.3 CRDL Standard

All required analytes evaluated by the guidelines exhibited CDRL recoveries within the control limit with the exception of silver and zinc. The CRDL standard of these analytes exhibited recoveries greater than the control limit. All associated sample locations exhibiting concentrations less than two times the detection limit were qualified as estimated.

3.4 ICP Interference Control Sample

All ICS recoveries were acceptable.

4. Matrix Spike/ Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate

Matrix spike and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 Matrix Spike / Matrix Spike Duplicate (MS/MSD)

The MS of barium associated with sample location OU4-SS-11-COMP3(12-18) exhibited a recovery below control limit. All sample results associated with barium were qualified as estimated.

The MSD of barium and mercury associated with of sample location OU4-SS-11-COMP3(12-18) exhibited recoveries greater than control limits. All sample results associated with barium and mercury were qualified as estimated.

The MS of copper associated with of sample location OU4-SS-14-19(0-1) exhibited a recovery below control limits. All sample results associated with copper were qualified as estimated.

The MS and/or MSD of chromium and potassium associated with sample location OU4-SS-14-19(0-1) exhibited recoveries greater than the control limits. All associated sample results were qualified as estimated.

4.2 Laboratory Duplicate

The relative percent difference (RPD) between laboratory duplicate analyses performed on sample location OU4-SS-14-19(0-1) exhibited a RPD greater than control limits associated with the analyte calcium. All associated sample results for calcium were qualified as estimated. All other associated laboratory duplicate RPDs were acceptable.

5. Field Duplicate

Results for duplicate samples are summarized as follows:

Sample ID / Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
	Aluminum	8770	9530	8.3%
	Antimony	1.03	1.44	33.2%
	Arsenic	28.9	29.4	1.7%
	Barium	4510	4280	5.2%
	Beryllium	2.28	2.22	2.7%
	Cadmium	30.6	27.6	10.3%
	Calcium	19300	19700	2.1%
	Chromium	15.9	16.6	4.3%
	Cobalt	14.6	8.66	51.1%
OU4-SS-14-12(1-6) / OU4-SS- DUP-7	Copper	77.1	138	56.6%
	Iron	28900	29800	3.1%
	Lead	517	469	9.7%
DUP-7	Magnesium	8170	8300	1.6%
	Manganese	1370	626	74.5%
	Mercury	0.214	0.223	4.1%
	Nickel	32.8	22.8	36.0%
	Potassium	1600	1650	3.1%
	Selenium	ND	ND	0.0%
	Silver	1.28	1.09	16.0%
	Sodium	201	274	30.7%
	Thallium	2.22	1.86	17.6%
	Vanadium	24.9	27.8	11.0%
ND sold date de	Zinc	3470	3140	10.0%

ND not detected.

The duplicate results are acceptable.

AC The field duplicate relative percent difference (RPD) is acceptable when the RPD between parent sample and field duplicate sample is less than two times the reporting limit (RL) and where the parent sample and/or duplicate concentration is less than five times RL.

6. Laboratory Control Sample (LCS)

LCS recoveries were within control limits.

7. Serial Dilution

Serial dilutions were within control limits.

8. Furnace QC

No furnace analyses were performed on the samples.

9. Method of Standard Additions (MSA)

No samples were analyzed following the method of standard additions.

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Data Validation Checklist

Inorganic Data Validation Checklist	YES	NO	NA
<u>Data Completeness and Deliverables</u>	TES	1,0	1111
Is there a narrative or cover letter present?	X		
Are the sample numbers included in the narrative?	X		
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?		X	
Is the package paginated?	X		
Are the forms and copies legible?	X		
Form I to IX			
Are all the Form I through Form IX labeled with:			
Laboratory name?	X		
Sample No.?	X		
SDG No.?	X		
Correct units?	X		
Matrix?	X		
Raw Data			
Is the digestion log for flame AA/ICP present?	X		
Is the digestion log for furnace AA present?			X
Is the distillation log for mercury present?			X
Is the distillation log for cyanides present?			X
Are pH values listed?			
pH for metals analyses <2 (waters)?			X
pH for cyanide analyses >12 (waters)?			X
Percent solids calculation present for soils/sediments?	X		
Are preparation dates present on sample preparation logs/bench sheets?	X		
Are the measurement read out records present for:			
ICP	X		
Flame AA			X
Furnace AA			X
Mercury	X		
Cyanides			X
Is the data legible?	X		
Is the data properly labeled?	X		
Holding Times	+	+ +	
Were mercury analyses performed within 28 days?	X		

Inorganic Data Validation Checklist	YES	NO	NA
Were cyanide distillations performed within 14 days?			X
Were other metal analysis performed within 6 months?	X		
Form I (Final Data)			
Are all forms complete?	X		
Are correct units indicated on Form I's?	X		
Are soil sample results for each parameter corrected for percent solids?	X		
Are all "less than IDL" values properly coded with "U"?	X		
Are the correct concentration qualifiers on Form 1's?	X		
Is a physical description of samples given on Form I's?	X		
Calibration			
Is a record of at least 2 point calibration present for ICP analysis?	X		
Is a record of 5 point calibration present for Hg analysis?	X		
Is a record of 4 point calibration present for:			
Flame AA?			X
Furnace AA?			X
Cyanides?			X
Is one calibration standard at the CRDL level for all AA (except Hg) and cyanides analyses?			X
Is correlation coefficient less than .995 for:			
Mercury Analysis?		X	
Cyanide Analysis?			X
Atomic Absorption Analysis?			X
Form II A (Initial and Continuing Calibration Verification)			
Present and complete for all analytes?	X		
Are all calibration standards (initial and continuing) within control limits for:			
Metals (90-110%)?	X		
Hg (80-120%)?	X		
Cyanides (85-115%)?			X
Was continuing calibration performed every 10 samples or every 2 hours?	X		
Was the ICV for cyanides distilled?			X
Form II B (CRDL Standards for AA and ICP)			
Was a CRDL standard (CRA) analyzed after initial calibration for all AA metals (except Hg)?	X		
Was a mid-range calibration verification standard distilled and analyzed for cyanide analysis?			X

T T	1 1	
	NO	NA
	X	_
		X
X		
X		
X		
	X	
X		
X		_
X		
X		_
X		
X		
	X	
	X	
T		
X		
X		
X		
		X
X		
X		
	X	
	X	
	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X

Inorganic Data Validation Checklist	1750	1376	3.7.1
concentration within control limits (75-125)?	YES	NO	NA
Are results outside the control limits (75-125%) flagged with "N" on Form I's and Form VA?			X
Aqueous			
Are any spike recoveries:			
less than 30%?			X
between 30-74%?			X
between 126-150%?			X
greater then 150%?			X
Soil/Sediment			
Are any spike recoveries:			
less than 10%?		X	
between 10-74%?	X		
between 126-200%?	X		
greater than 200%?	X		
Form VI (Lab Duplicates)			
Present and complete for:			
each SDG?	X		
each matrix type?	X		
Was field blank used for duplicate analysis?		X	
Are all values within control limits (RPD 20% or difference ≤ ±CRDL)?		X	
If no, are all results outside the control limits flagged with an * on Form I's and VI?	X		
Aqueous			
Is any RPD greater than 20% where sample and duplicate are both greater than or equal to 5 times CRDL?			X
Is any difference between sample and duplicate greater than CRDL where sample and/or duplicate is less than 5 times CRDL?			X
Soil/Sediment			
Is any RPD (where sample and duplicate are both greater than or equal to 5 times CRDL) >35 %?	X		
Is any difference between sample and duplicate (where sample and/or duplicate is less than 5xCRDL) > 2xCRDL?		X	
Field Duplicates			
Were field duplicates analyzed?	X		
<u>Aqueous</u>			
is any RPD greater than 50% where sample and duplicate are both greater than or equal to 5xCRDL?			X
			X

Inorganic Data Validation Checklist			
	YES	NO	NA
Is any difference between sample and duplicate greater than CRDL where sample and/or duplicate is less than 5xCRDL?			
Soil/Sediment			
Is any RPD (where sample and duplicate are both greater than 5 times CRDL) > 100%?		X	
Is any difference between sample and duplicate (where sample and/or duplicate is less than 5x CRDL) >2xCRDL?		X	
Form VII (Laboratory Control Sample)			
Was one LCS prepared and analyzed for:			
each SDG?	X		
each batch samples digested/distilled?	X		
Aqueous LCS			
Is any LCS recovery:			X
less than 50%?			X
between 50% and 79%?			X
between 121% and 150%?			X
greater than 150%?			X
Solid LCS			
Is LCS "Found" value higher than the control limits?		X	
Is LCS "Found" lower than the control limits?		X	
Form IX (ICP Serial Dilution)			
Was Serial Dilution analysis performed for:			
each SDG?	X		
each matrix type?	X		
Was field blank(s) used for Serial Dilution Analysis?		X	
Are results outside control limits flagged with an "E"" on Form I's and Form IX when the initial concentration on Form IX is equal to 50 times IDL or greater.		X	
Are any required % difference values:			
> 10%?		X	
≥100%?		X	
Furnace Atomic Absorption (AA) QC Analysis			
Are duplicate injections present in furnace raw data (except during full Method of Standard Addition) for each sample analyzed by GFAA?			X
Do the duplicate injection readings agree within 20% Relative Standard Deviation (RSD) or coefficient of Variation (CV) for concentrations greater than CRDL?			X
Were dilutions analyzed for samples with analytical spike recovery less than 40%?			X

Inorganic Data Validation Checklist	YES	NO	NA
Is analytical spike recovery outside the control limits (85-115%) for any sample?	125	110	X
Form VIII (Method of Standard Addition Results)			V
Present?			X
If no, is any Form I result coded with "S" or "+"?			X
Was MSA required for any sample but not performed?			X
Is the coefficient of correlation for MSA less than 0.995 for any sample?			X
Is the coefficient of correlation for MSA less than 0.990 for any sample?			X
Was proper quantitation procedure followed?			X
Dissolved/Total for Inorganic/Total Analytes			
Were any analyses performed for dissolved as well as total analytes on the same sample.			X
Is the concentration of any dissolved analyte greater than its total concentration by more than 10%? (if >CRDL)			X
Is the concentration of any dissolved analyte greater than its total concentration by more than 50%?			X
Field Blank			
Is the field blank concentration less than CRDL (or 2xIDL when IDL>CRDL) for all analytes?			X
If no, was field blank value already rejected due to other QC criteria?			X
Form X, XI, XII (Verification of Instrumental Parameters)			
Is verification report present for :			
Instrument Detection Limits (quarterly)?	X		
ICP Interelement Correlation Factors (annually)?	X		
ICP Linear Ranges (quarterly)?	X		
Is IDL greater than CRDL for any analyte?		X	
If yes, are the concentrations of the samples analyzed on the instrument whose IDL exceeds CRDL, greater than 5xIDL.			X
Was any sample result higher than the linear range of ICP.		X	
Was any sample result higher than the highest calibration standard for non-ICP parameters?		X	
If yes for any of the above, was the sample diluted to obtain the result on Form I?			X
Percent Solids			
Are the percent solids in soil/sediment(s):			
< 50%?		X	
< 10%?		X	

Corrected Sample Analysis Data Sheets

Analysis Report



Page 1 of 2 REVISED

Lancaster Laboratories Sample No. SW 4544590

OU4-SS-08-COMP2(0-1) Soil Sample

RAL DePue Site

Collected: 06/08/2005

Account Number: 11594

Dry

Submitted: 06/16/2005 09:00 Reported: 07/27/2005 at 11:35

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

Discard: 08/27/2005

08CO2 SDG#: DPU08-01

				Dry		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.0704 J	0.110	mg/kg	1
01643	Aluminum	7429-90-5	11,300.	22.0	mg/kg	1
01650	Calcium	7440-70-2	9,520.	33.0	mg/kg	1
01654	Iron	7439-89-6	16,400.	22.0	mg/kg	1
01657	Magnesium	7439-95-4	4,360.	27.5	mg/kg	1
01662	Potassium	7440-09-7	2,440.	54.9	mg/kg	1
01667	Sodium	7440-23-5	84.5 J	110.	mg/kg	1
06925	Thallium	7440-28-0	N.D.	1.10	mg/kg	1
06935	Arsenic	7440-38-2	9.31	1.10	mg/kg	1
06936	Selenium	7782-49-2	1.11	1.10	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.59	mg/kg	1
06946	Barium	7440-39-3	2,170.	11.0	mg/kg	10
06947	Beryllium	7440-41-7	0.638	0.330	mg/kg	1
06949	Cadmium	7440-43-9	52.7	2.20	mg/kg	1
06951	Chromium	7440-47-3	18.0	4.40	mg/kg	1
06952	Cobalt	7440-48-4	7.61	5.49	mg/kg	1
06953	Copper	7440-50-8	62.6	4.40	mg/kg	1
06955	Lead	7439-92-1	285.	11.0	mg/kg	1
06958	Manganese	7439-96-5	537.	2.20	mg/kg	1
06961	Nickel	7440-02-0	17.6	5.49	mg/kg	1
06966	Silver	7440-22-4	1.14 J	2.20	mg/kg	1
06971	Vanadium	7440-62-2	27.8	2.20	mg/kg	1
06972	Zinc	7440-66-6	4,250.	11.0	mg/kg	10
00111	Moisture Code 086	n.a.	9.0	0.50	8	1
00394	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	moisture resul	t reported above	oven drying ar		20
00394	pH Code 067 The pH was performed on a 1.1	n.a.	6.9	0.010	Std. Units	1

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

CAT

Analysis Name

Method

Analysis Trial# Date and Time

Analyst

9816

Dilution Factor





Lancaster Laboratories Sample No. SW 4544591

OU4-SS-08-COMP3(0-1) Soil Sample

RAL DePue Site

Collected: 06/08/2005

Submitted: 06/16/2005 09:00 Reported: 07/27/2005 at 11:35

Discard: 08/27/2005

08C31 SDG#: DPU08-02

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

CAT				Dry		
No.	Analysis Name		Dry	Method		Dilution
1000 E-200		CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.146	0.115	mg/kg	1
01643		7429-90-5	9,910.	23.0	mg/kg	1
01650	- Caronalia	7440-70-2	9,530.	34.4	mg/kg	1
01654		7439-89-6	21.000.	23.0	mg/kg	1
01657	Magnesium	7439-95-4	3,370.	28.7	mg/kg	1
01662	Potassium	7440-09-7	1,830.	57.4	mg/kg	1
01667	- Courain	7440-23-5	87.0 J	115.	mg/kg	
06925	Thallium	7440-28-0	1.12 J	1.15		1
06935	Arsenic	7440-38-2	19.5	1.15	mg/kg	1
06936	Selenium	7782-49-2	1.82	1.15	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.89	mg/kg	1
06946	Barium	7440-39-3	8,260.		mg/kg	1
06947	Beryllium	7440-41-7	1.10	11.5	mg/kg	10
06949	Cadmium	7440-43-9	138.	0.344	mg/kg	1
06951	Chromium	7440-47-3	18.5	2.30	mg/kg	1
06952	Cobalt	7440-48-4		4.59	mg/kg	1
06953	Copper	7440-50-8	9.38	5.74	mg/kg	1
06955	Lead	7439-92-1	146.	4.59	mg/kg	1
06958	Manganese		712.	11.5	mg/kg	1
06961	Nickel	7439-96-5	523.	2.30	mg/kg	1
06966	Silver	7440-02-0	18.6	5.74	mg/kg	1
	Vanadium	7440-22-4	3.13	2.30	mg/kg	1
06972	Zinc	7440-62-2	26.6	2.30	mg/kg	1
00111	Moisture Code 086	7440-66-6	9,980.	11.5	mg/kg	10
30111		n.a.	12.9	0.50	¥	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of the moisture result	ne sample after reported abov	oven drying at e is on an		
00394	pH Code 067	n.a.	6.3	0.010	Std. Units	1
	The pH was performed on a 1:1	slurry (25 gms	of sample and	7E m]		

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

CAT No.

Analysis Name

Method

Analysis Trial# Date and Time Analyst

8818

Dilution Pactor





Lancaster Laboratories Sample No. SW 4544592

OU4-SS-08-COMP3(1-6) Soil Sample

RAL DePue Site

Collected: 06/08/2005

Submitted: 06/16/2005 09:00 Reported: 07/27/2005 at 11:35

Discard: 08/27/2005

08C32 SDG#: DPU08-03

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

CAT				Dry		
No.	Analysis Name		Dry	Method		Dilution
	randly 515 Name	CAS Number	Result	Detection	Units	Factor
00159	Mercury	7420 07 6	\	Limit		
01643		7439-97-6	0.174	0.118	mg/kg	1
01650	Calcium	7429-90-5		23.5	mg/kg	1
01654		7440-70-2	4,540.	35.3	mg/kg	1
01657		7439-89-6	24,700.	23.5	mg/kg	1
01662	Potassium	7439-95-4	2,130.	29.4	mg/kg	1
01667		7440-09-7	1,960.	58.8	mg/kg	1
06925	Thallium	7440-23-5	83.3 J	118.	mg/kg	1
06935	Arsenic	7440-28-0	N.D.	1.18	mg/kg	1
06936	Selenium	7440-38-2	21.9	1.18	mg/kg	1
06944	Antimony	7782-49-2	1.27	1.18	mg/kg	1
06946	Barium	7440-36-0	N.D.	7.05	mg/kg	1
06947	Beryllium	7440-39-3	7,080.	11.8	mg/kg	10
06949	Cadmium	7440-41-7	1.37	0.353	mg/kg	1
06951	Chromium	7440-43-9	93.1	2.35	mg/kg	1
06952	Cobalt	7440-47-3	18.2	4.70	mg/kg	1
06953	Copper	7440-48-4	9.71	5.88	mg/kg	1
06955	Lead	7440-50-8	96.7	4.70	mg/kg	1
06958	Manganese	7439-92-1	675.	11.8	mg/kg	1
06961	Nickel	7439-96-5	599.	2.35	mg/kg	1
06966	Silver	7440-02-0	20.1	5.88	mg/kg	1
06971		7440-22-4	2.50	2.35	mg/kg	1
06971	Vanadium	7440-62-2	27.4	2.35	mg/kg	1
00111	Zinc	7440-66-6	8,590.	11.8	mg/kg	10
00111	Moisture Code 086	n.a.	14 0		*	1
00394	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis. pH Code 067	s in weight of the moisture result	ne sample afte reported abo			1
00234	pH Code 067	n.a.	6.4	0.010	Std.	1
	The pH was performed on a 1:1	slurry (25 mg			Units	70

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

CAT No.

Analysis Name

Method

Analysis Trial# Date and Time Analyst 6626

Dilution Factor





Lancaster Laboratories Sample No. SW 4544593

OU4-SS-08-COMP4(0-1) Soil Sample

RAL DePue Site

Collected: 06/08/2005

Submitted: 06/16/2005 09:00 Reported: 07/27/2005 at 11:36

Discard: 08/27/2005

08C04 SDG#: DPU08-04

Account Number: 11594

Drv

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

CAT				Dry		
			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159		7439-97-6	0.104 J	0.118	mg/kg	1
01643		7429-90-5	10,900.	23.6	mg/kg	1
01650		7440-70-2	12,500.	35.4	mg/kg	1
01654		7439-89-6	27,700.	23.6	mg/kg	1
01657	3	7439-95-4	6,270.	29.5	mg/kg	1
01662	· ocabbian	7440-09-7	1,800.	59.0	mg/kg	1
01667		7440-23-5	129.	118.	mg/kg	1
06925		7440-28-0	N.D.	1.18	mg/kg	1
06935		7440-38-2	10.1	1.18	mg/kg	1
06936		7782-49-2	1.34	1.18	mg/kg	1
06944		7440-36-0	N.D.	7.08	mg/kg	1
06946		7440-39-3	1,400.	11.8	mg/kg	10
06947	7	7440-41-7	0.557	0.354	mg/kg	1
06949		7440-43-9	47.3	2.36	mg/kg	1
06951		7440-47-3	22.6	4.72	mg/kg	1
06952	Cobalt	7440-48-4	12.8	5.90	mg/kg	1
06953	Copper	7440-50-8	58.4	4.72	mg/kg	1
06955	Lead	7439-92-1	284.	11.8	mg/kg	1
06958	Manganese	7439-96-5	1,060.	2.36	mg/kg	1
06961	Nickel	7440-02-0	20.2	5.90	mg/kg	1
06966	Silver	7440-22-4	0.969 J	2.36	mg/kg	1
06971	Vanadium	7440-62-2	34.3	2.36	mg/kg	1
06972	Zinc	7440-66-6	3,320.	11.8	mg/kg	1
00111	Moisture Code 086	n.a.	15.2	0.50	*	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	s in weight of to moisture resul	he sample after	oven drying at		1
00394	pH Code 067	n.a.	6.5	0.010	Std. Units	1
	The pH was performed on a 1.1	clurry /75	-61	0.5		

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

CAT Analysis Name Method Trial# Date and Time Analyst #522 Dilution Factor





Lancaster Laboratories Sample No. SW 4544594

OU4-SS-09-COMP1(1-6) Soil Sample

RAL DePue Site

Collected: 06/08/2005

Submitted: 06/16/2005 09:00 Reported: 07/27/2005 at 11:36

Discard: 08/27/2005

09C01 SDG#: DPU08-05

Account Number: 11594

Drv

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

				Dry		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.157	0.105	mg/kg	1
01643	Aluminum	7429-90-5	13,500.	21.1	mg/kg	1
01650	Calcium	7440-70-2	11,100.	31.6	mg/kg	1
01654	Iron	7439-89-6	24,800.	21.1	mg/kg	1
01657	Magnesium	7439-95-4	4,860.	26.3	mg/kg	1
01662	Potassium	7440-09-7	2,290.	52.7	mg/kg	1
01667	Sodium	7440-23-5	489.	105.	mg/kg	1
06925	Thallium	7440-28-0	N.D.	1.05	mg/kg	1
06935	Arsenic	7440-38-2	16.0	1.05	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.05	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.32	mg/kg	1
06946	Barium	7440-39-3	1,650.	10.5	mg/kg	10
06947	Beryllium	7440-41-7	1.21	0.316	mg/kg	1
06949	Cadmium	7440-43-9	23.5	2.11	mg/kg	1
06951	Chromium	7440-47-3	20.4	4.21	mg/kg	1
06952	Cobalt	7440-48-4	8.30	5.27	mg/kg	1
06953	Copper	7440-50-8	57.8	4.21	mg/kg	1
06955	Lead	7439-92-1	232.	10.5	mg/kg	1
06958	Manganese	7439-96-5	583.	2.11	mg/kg	1
06961	Nickel	7440-02-0	22.3	5.27	mg/kg	1
06966	Silver	7440-22-4	0.855 J	2.11	mg/kg	1
06971	Vanadium	7440-62-2	35.6	2.11	mg/kg	1
06972	Zinc	7440-66-6	2,230.	10.5	mg/kg	1
00111	Moisture Code 086	n.a.	5.1	0.50	*	1
00394	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis. pH Code 067	moisture resul	he sample after t reported above	r oven drying at ve is on an		±
00374	The pH was performed on a 1:1	n.a.	7.1	0.010	Std. Units	1
	P. " WAS DELICITIES ON A 1:1	SILLITTY (75 OMC	Of cample and	3 C m 1		

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

CAT

No. Analysis Name

Method

Trial# Date and Time Analyst

6924

Factor



Lancaster Laboratories, Inc. 2425 New Holland Pike PO Box 12425 Lancaster, PA 17605-2425 717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. SW 4544595

OU4-SS-09-COMP2(1-6) Soil Sample

RAL DePue Site

Collected: 06/08/2005

Submitted: 06/16/2005 09:00 Reported: 07/27/2005 at 11:36

Discard: 08/27/2005

09CO2 SDG#: DPU08-06

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

CAT				Dry		
No.			Dry	Method		Dilution
	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.333	0.108	mg/kg	1
01643	Aluminum	7429-90-5	11,500.	21.6	mg/kg	1
01650	Calcium	7440-70-2	7,720.	32.4	mg/kg	1
01654	Iron	7439-89-6	24,600.	21.6	mg/kg	1
01657	Magnesium	7439-95-4	2,880.	27.0	mg/kg	1
01662	Potassium	7440-09-7	2,210.	54.1	mg/kg	1
01667	Sodium	7440-23-5	188.	108.	mg/kg	1
06925	Thallium	7440-28-0	N.D.	1.08	mg/kg	1
06935	Arsenic	7440-38-2	24.5	1.08	mg/kg	1
06936	Selenium	7782-49-2	1.23	1.08	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.49	mg/kg	1
06946	Barium	7440-39-3	2,510.	10.8	mg/kg	10
06947	Beryllium	7440-41-7	1.22	0.324	mg/kg	1
06949	Cadmium	7440-43-9	37.7	2.16	mg/kg	1
06951	Chromium	7440-47-3	21.0	4.32	mg/kg	1
06952	Cobalt	7440-48-4	10.9	5.41	mg/kg	1
06953	Copper	7440-50-8	60.3	4.32	mg/kg	1
06955	Lead	7439-92-1	306.	10.8	mg/kg	1
06958	Manganese	7439-96-5	923.	2.16	mg/kg	1
06961	Nickel	7440-02-0	24.9	5.41	mg/kg	1
06966	Silver	7440-22-4	0.952 J	2.16	mg/kg	1
06971	Vanadium	7440-62-2	32.8	2.16	3. 3	
06972	Zinc	7440-66-6	2,690.	10.8	mg/kg	1
00111	Moisture Code 086	n.a.	7.5	0.50	mg/kg	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of t	he sample after	oven drying at	: 5	1
00394	pH Code 067	n.a.	7.1	0.010	Std. Units	1

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml.

of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

No. Analysis Name

CAT

Method

Analysis Trial# Date and Time

Analyst

8826

Dilution Pactor



Lancaster Laboratories, Inc. 2425 New Holland Pike PO Box 12425 Lancaster, PA 17605-2425 717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. SW 4544596

OU4-SS-09-COMP3(6-12) Soil Sample

RAL DePue Site

Collected: 06/08/2005

Submitted: 06/16/2005 09:00 Reported: 07/27/2005 at 11:36

Discard: 08/27/2005

09CO3 SDG#: DPU08-07

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

				Dry		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.139	0.108	mg/kg	1
01643	Aluminum	7429-90-5	9,120.	21.5	mg/kg	1
01650	Calcium	7440-70-2	10,100.	32.3	mg/kg	1
01654	Iron	7439-89-6	18,400.	21.5	mg/kg	1
01657	Magnesium	7439-95-4	6,190.	26.9	mg/kg	1
01662	Potassium	7440-09-7	1,800.	53.8	mg/kg	1
01667	Sodium	7440-23-5	67.7 J	108.	mg/kg	1
06925	Thallium	7440-28-0	N.D.	1.08	mg/kg	1
06935	Arsenic	7440-38-2	11.3	1.08	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.08	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.45	mg/kg	1
06946	Barium	7440-39-3	816.	10.8	mg/kg	1
06947	Beryllium	7440-41-7	0.803	0.323	mg/kg	1
06949	Cadmium	7440-43-9	9.26	2.15	mg/kg	1
06951	Chromium	7440-47-3	16.5	4.30	mg/kg	1
06952	Cobalt	7440-48-4	7.08	5.38	mg/kg	1
06953	Copper	7440-50-8	35.2	4.30	mg/kg	1
06955	Lead	7439-92-1	173.	10.8	mg/kg	1
06958	Manganese	7439-96-5	659.	2.15	mg/kg	1
06961	Nickel	7440-02-0	18.4	5.38	mg/kg	1
06966	Silver	7440-22-4	0.538 J	2.15	mg/kg	1
06971	Vanadium	7440-62-2	25.7	2.15	mg/kg	1
06972	Zinc	7440-66-6	1,550.	10.8	mg/kg	1
00111	Moisture Code 086	n.a.	7.0	0.50	*	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of t moisture resul	he sample after t reported above	oven drying at is on an		
00394	pH Code 067	n.a.	7.2	0.010	Std. Units	1
	The pH was performed on a 1:1	slurry (25 gms.	of sample and 2	5 ml.		

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

CAT Analysis Name Method Trial# Date and Time Analyst 9828 Factor





Lancaster Laboratories Sample No. SW 4544597

OU4-SS-09-COMP4(1-6) Soil Sample

RAL DePue Site

Collected: 06/09/2005

Submitted: 06/16/2005 09:00 Reported: 07/27/2005 at 11:36

Discard: 08/27/2005

09CO4 SDG#: DPU08-08

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

CAT				Dry		
No.	Analysis Name	12272 901 1011	Dry	Method		Dilution
	Control Contro	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.0648 J	0.110	mg/kg	1
01643	Aluminum	7429-90-5	9,630.	22.0	mg/kg	1
01650		7440-70-2	7,660.	33.0	mg/kg	1
01654		7439-89-6	17,900.	22.0	mg/kg	1
01657		7439-95-4	2,670.	27.5	mg/kg	1
01662	Potassium	7440-09-7	1,580.	55.1	mg/kg	1
01667	Sodium	7440-23-5	44.8 J	110.	mg/kg	1
06925	Thallium	7440-28-0	N.D.	1.10	mg/kg	1
06935		7440-38-2	14.2	1.10	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.10	mg/kg	1
06944	· are amore	7440-36-0	N.D.	6.61	mg/kg	1
06946	Barium	7440-39-3	2,080.	11.0	mg/kg	10
06947	Beryllium	7440-41-7	0.698	0.330	mg/kg	1
06949	Cadmium	7440-43-9	30.6	2.20	mg/kg	1
06951	Chromium	7440-47-3	16.5	4.41	mg/kg	1
06952	Cobalt	7440-48-4	8.38	5.51	mg/kg	1
06953	Copper	7440-50-8	48.9	4.41	mg/kg	1
06955	Lead	7439-92-1	270.	11.0	mg/kg	1
06958	Manganese	7439-96-5	723.	2.20	mq/kq	1
06961	Nickel	7440-02-0	17.2	5.51	mg/kg	1
06966	Silver	7440-22-4	0.917 J	2.20	mg/kg	1
06971	Vanadium	7440-62-2	27.3	2.20	mg/kg	1
06972	Zinc	7440-66-6	2,690.	11.0	mg/kg	1
00111	Moisture Code 086	n.a.	9.2	0.50	3	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	s in weight of to moisture resul	he sample after	oven drying at		1
00394	pH Code 067	n.a.	7.4	0.010	Std. Units	1
	The pulling part					

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

CAT No.

Analysis Name

Method

Analysis Trial# Date and Time Analyst

8686

Dilution Factor





Lancaster Laboratories Sample No. SW 4544598

OU4-SS-09-COMP5(1-6) Soil Sample

RAL DePue Site

Collected: 06/09/2005

Submitted: 06/16/2005 09:00 Reported: 07/27/2005 at 11:36

Discard: 08/27/2005

09CO5 SDG#: DPU08-09

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

				Dry		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159		7439-97-6	0.198	0.113	mg/kg	1
01643	Aluminum	7429-90-5	9,840.	22.7	mg/kg	1
01650	Calcium	7440-70-2	6,470.	34.0	mg/kg	1
01654	Iron	7439-89-6	19,700.	22.7	mg/kg	1
01657	Magnesium	7439-95-4	3,880.	28.3	mg/kg	1
01662	Potassium	7440-09-7	1,670.	56.6	mg/kg	1
01667	Sodium	7440-23-5	50.0 J	113.	mg/kg	1
06925	Thallium	7440-28-0	N.D.	1.13	mg/kg	1
06935	Arsenic	7440-38-2	16.7	1.13	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.13	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.80	mg/kg	1
06946	Barium	7440-39-3	3,280.	11.3	mg/kg	10
06947	Beryllium	7440-41-7	0.839	0.340	mq/kq	1
06949	Cadmium	7440-43-9	40.7	2.27	mg/kg	1
06951	Chromium	7440-47-3	17.8	4.53	mg/kg	1
06952	Cobalt	7440-48-4	8.33	5.66	mg/kg	1
06953	Copper	7440-50-8	63.6	4.53	mg/kg	1
06955	Lead	7439-92-1	434.	11.3	mg/kg	1
06958	Manganese	7439-96-5	720.	2.27	mg/kg	1
06961	Nickel	7440-02-0	18.2	5.66	mg/kg	1
06966	Silver	7440-22-4	1.23 J	2.27	mg/kg	1
06971	Vanadium	7440-62-2	27.6	2.27	mg/kg	1
06972	Zinc	7440-66-6	3,150.	11.3	mg/kg	1
00111	Moisture Code 086	n.a.	11.7	0.50	# #	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of t	he sample after	oven drying at	•	•
00394	pH Code 067 The pH was performed on a 1:1	n.a.	7.2	0.010	Std. Units	1

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

No. Analysis Name

CAT

Method

Analysis
Trial# Date and Time

Analyst

3932

Dilution Factor





Lancaster Laboratories Sample No. SW 4544599

OU4-SS-10-10(1-6) Soil Sample

RAL DePue Site

Collected: 06/09/2005

Submitted: 06/16/2005 09:00 Reported: 07/27/2005 at 11:36

Discard: 08/27/2005

10101 SDG#: DPU08-10

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

CAT				Dry		
No.	Analysis Name	7 <u>2</u> 13/20 (52) - 01	Dry	Method		Dilution
	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.177	0.113	mg/kg	1
01643	Aluminum	7429-90-5	10,500.	22.6	mg/kg	1
01650	Calcium	7440-70-2	14,700.	33.9	mg/kg	1
01654	Iron	7439-89-6	18,100.	22.6	mg/kg	1
01657	Magnesium	7439-95-4	6,640.	28.3	mg/kg	
01662	Potassium	7440-09-7	1.880.	56.6	mg/kg	1
01667	Sodium	7440-23-5	103. ј	113.		1
06925	Thallium	7440-28-0	N.D.	1.13	mg/kg	1
06935	Arsenic	7440-38-2	7.81	1.13	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.13	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.79	mg/kg	1
06946	Barium	7440-39-3	589.		mg/kg	1
06947	Beryllium	7440-41-7	0.613	11.3	mg/kg	1
06949	Cadmium	7440-43-9	8.26	0.339	mg/kg	1
06951	Chromium	7440-47-3	27.1	2.26	mg/kg	1
06952	Cobalt	7440-48-4		4.52	mg/kg	1
06953	Copper	7440-48-4	7.25	5.66	mg/kg	1
06955	Lead	7439-92-1	53.4	4.52	mg/kg	1
06958	Manganese	7439-92-1	254.	11.3	mg/kg	1
06961	Nickel	-	569.	2.26	mg/kg	1
06966	Silver	7440-02-0	19.9	5.66	mg/kg	1
06971	Vanadium	7440-22-4	0.603 J	2.26	mg/kg	1
06972	Zinc	7440-62-2	25.8	2.26	mg/kg	1
00111	Moisture Code 086	7440-66-6	671.	11.3	mg/kg	1
		n.a.	11.6	0.50	8	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of the moisture result	he sample afte t reported abo	er oven drying at ove is on an		
00394	pH Code 067 The pH was performed on a 1:1:	n.a.	7.1	0.010	Std. Units	1

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

CAT Analysis Name Method Trial# Date and Time Analyst 6834 Factor





Lancaster Laboratories Sample No. SW 4544600

OU4-SS-10-COMP1(0-1) Soil Sample

RAL DePue Site

Collected:06/09/2005

Submitted: 06/16/2005 09:00 Reported: 07/27/2005 at 11:36

Discard: 08/27/2005

10C01 SDG#: DPU08-11

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

CAT				Dry		
No.	Analysis Name		Dry	Method		Dilution
NO.	Analysis Name	CAS Number	Result	Detection	Units	Factor
00159	Mercury	7420 07 6	121 2020 10	Limit		
01643	Aluminum	7439-97-6	0.0933 J	0.110	mg/kg	1
01650	Calcium	7429-90-5	6,550.	22.0	mg/kg	1
01654	Iron	7440-70-2	3,940.	33.0	mg/kg	1
01657	Magnesium	7439-89-6	16,900.	22.0	mg/kg	1
01662	Potassium	7439-95-4	1,630.	27.5	mg/kg	1
01667	Sodium	7440-09-7	970.	55.1	mg/kg	1
06925	Thallium	7440-23-5	44.0 J	110.	mg/kg	1
06935		7440-28-0	N.D.	1.10	mg/kg	1
06936	Arsenic	7440-38-2	13.9	1.10	mg/kg	1
06936		7782-49-2	N.D.	1.10	mg/kg	1
	·	7440-36-0	N.D.	6.61	mg/kg	1
06946		7440-39-3	1,500.	11.0	mg/kg	5
06947	/am	7440-41-7	0.522	0.330	mg/kg	1
06949	Cadmium	7440-43-9	30.2	2.20	mg/kg	1
06951	Chromium	7440-47-3	13.1	4.41	mg/kg	1
06952		7440-48-4	6.20	5.51	mg/kg	
06953	Copper	7440-50-8	43.5	4.41	mg/kg	1
06955	Lead	7439-92-1	400.	11.0		1
06958	Manganese	7439-96-5	829.	2.20	mg/kg	1
06961	Nickel	7440-02-0	12.9	5.51	mg/kg	1
06966	Silver	7440-22-4	0.793 J	2.20	mg/kg	1
06971	Vanadium	7440-62-2	20.1		mg/kg	1
06972	Zinc	7440-66-6	2,710.	2.20	mg/kg	1
00111	Moisture Code 086	n.a.	9.2	11.0	mg/kg	1
	"Moisture" represents the loss	in unight of the	9.2	0.50	8	1
	103 - 105 degrees Celsius. The as-received basis.	moisture result	reported above	oven drying at e is on an		
00394	pH Code 067	n.a.	6.4	0.010	Std.	1
	The pH was performed on a 1:1:	slurry (25 cms	of sample and '	25 m1	Units	

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

Analysis Name No.

CAT

Method

Analysis Trial# Date and Time Analyst

8836

Dilution Factor





Lancaster Laboratories Sample No. SW 4544601

OU4-SS-10-COMP2(1-6) Soil Sample

RAL DePue Site

Collected: 06/09/2005

Submitted: 06/16/2005 09:00 Reported: 07/27/2005 at 11:36

Discard: 08/27/2005

10C02 SDG#: DPU08-12

Account Number: 11594

Dry

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

CAT			-	Dry		
No.	Analysis Name	200 100 100	Dry	Method		Dilution
	Analysis Name	CAS Number	Result	Detection	Units	Factor
00159	Mercury	7439-97-6	0.379	Limit 0.110	0	_
01643	Aluminum	7429-90-5	7,270.		mg/kg	1
01650	Calcium	7440-70-2		22.0	mg/kg	1
01654	Iron	7439-89-6	6,070.	33.0	mg/kg	1
01657	Magnesium	7439-95-4		22.0	mg/kg	1
01662		7440-09-7	2,060.	27.5	mg/kg	1
01667			1,060.	54.9	mg/kg	1
06925	Thallium	7440-23-5	N.D.	110.	mg/kg	1
06935		7440-28-0	N.D.	1.10	mg/kg	1
06936		7440-38-2	14.8	1.10	mg/kg	1
06944		7782-49-2	1.35	1.10	mg/kg	1
		7440-36-0	N.D.	6.59	mg/kg	1
06946		7440-39-3	1,950.	11.0	mg/kg	5
06947		7440-41-7	0.733	0.330	mg/kg	1
06949	Cadmium	7440-43-9	61.5	2.20	mg/kg	1
06951	OTTE OTTE GITT	7440-47-3	12.5	4.40	mg/kg	1
06952		7440-48-4	6.53	5.49	mg/kg	1
06953		7440-50-8	66.7	4.40	mg/kg	1
06955	Lead	7439-92-1	609.	11.0	mg/kg	1
06958	Manganese	7439-96-5	738.	2.20	mg/kg	1
06961	Nickel	7440-02-0	13.2	5.49	mg/kg	1
06966	Silver	7440-22-4	1.25 J	2.20	mg/kg	
06971	Vanadium	7440-62-2	20.9	2.20		1
06972	Zinc	7440-66-6	3,230.	11.0	mg/kg	1
00111	Moisture Code 086	п.а.	9.0		mg/kg	1
	"Moisture" represents the loss		3.0	0.50	*	1
	103 - 105 degrees Celsius. The	moisture recul	ne sample after	oven drying at		
	as-received basis.	morscare resur	r reported above	e is on an		
00394	pH Code 067	n.a.	6.6	0.010	Std.	1
					Units	1
	The pH was performed on a 1.1	5111×1011 /35			0.1.1.1.2	

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

Analysis Name No. Method

Analysis Trial# Date and Time Analyst 8838 Factor

Dilution



CAT



Lancaster Laboratories Sample No. SW 4544602

OU4-SS-11-COMP1(1-6) Soil Sample

RAL DePue Site

Collected: 06/09/2005

Submitted: 06/16/2005 09:00 Reported: 07/27/2005 at 11:36

Discard: 08/27/2005

11CO1 SDG#: DPU08-13

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

				Dry		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.102 J	0.109	mg/kg	1
01643	Aluminum	7429-90-5	12,700.	21.8	mg/kg	1
01650	Calcium	7440-70-2	12,200.	32.8	mg/kg	1
01654	Iron	7439-89-6	24,800.	21.8	mg/kg	1
01657	Magnesium	7439-95-4	5,290.	27.3	mg/kg	1
01662	Potassium	7440-09-7	2,280.	54.6	mg/kg	1
01667	Sodium	7440-23-5	52.0 J	109.	mg/kg	1
06925	Thallium	7440-28-0	1.14	1.09	mg/kg	1
06935	Arsenic	7440-38-2	21.2	1.09	mg/kg	1
06936	Selenium	7782-49-2	1.50	1.09	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.55	mg/kg	1
06946	Barium	7440-39-3	3,760.	10.9	mg/kg	10
06947	Beryllium	7440-41-7	0.873	0.328	mg/kg	1
06949	Cadmium	7440-43-9	88.7	2.18	mg/kg	1
06951	Chromium	7440-47-3	20.3	4.37	mg/kg	1
06952	Cobalt	7440-48-4	9.86	5.46	mg/kg	1
06953	Copper	7440-50-8	108.	4.37	mg/kg	1
06955	Lead	7439-92-1	464.	10.9	mg/kg	1
06958	Manganese	7439-96-5	893.	2.18	mg/kg	1
06961	Nickel	7440-02-0	18.9	5.46	mg/kg	1
06966	Silver	7440-22-4	2.11 J	2.18	mg/kg	1
06971	Vanadium	7440-62-2	31.2	2.18	mg/kg	1
06972	Zinc	7440-66-6	6,330.	10.9	mg/kg	10
00111	Moisture Code 086	n.a.	8.4	0.50	*	1
Marine College	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of t moisture resul	he sample after t reported abov	oven drying at re is on an		
00394	pH Code 067	n.a.	7.1	0.010	Std. Units	1

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

CAT
Analysis
No. Analysis Name
Method
Trial# Date and Time Analyst
Factor



Lancaster Laboratories, Inc. 2425 New Holland Pike PO Box 12425 Lancaster, PA 17605-2425 717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. SW 4544603

OU4-SS-11-COMP2(0-1) Soil Sample

RAL DePue Site

Collected: 06/09/2005

Submitted: 06/16/2005 09:00 Reported: 07/27/2005 at 11:37

Discard: 08/27/2005

11CO2 SDG#: DPU08-14

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

CAT				Dry		
No.	Analysis Name		Dry	Method		Dilution
	and 1/313 haute	CAS Number	Result	Detection	Units	Factor
00159	Mercury	7439-97-6	0.115 7	Limit		
01643	Aluminum	7429-90-5	0.115 J	0.116	mg/kg	1
01650	Calcium	7440-70-2	12,100.	23.2	mg/kg	1
01654	Iron	7439-89-6	10,500.	34.8	mg/kg	1
01657	Magnesium	7439-89-6	22,100.	23.2	mg/kg	1
01662	Potassium		5,100.	29.0	mg/kg	1
01667		7440-09-7	2,190.	58.1	mg/kg	1
06925		7440-23-5	161.	116.	mg/kg	1
06935	Arsenic	7440-28-0	N.D.	1.16	mg/kg	1
06936		7440-38-2	14.2	1.16	mg/kg	1
06944	Antimony	7782-49-2	1.12 J	1.16	mg/kg	1
06946	Barium	7440-36-0	N.D.	6.97	mg/kg	1
06947		7440-39-3	2,260.	11.6	mg/kg	5
06949	Cadmium	7440-41-7	0.805	0.348	mg/kg	1
06951	Chromium	7440-43-9	52.6	2.32	mg/kg	1
06952	Cobalt	7440-47-3	20.4	4.65	mg/kg	1
06953	A STATE OF THE STA	7440-48-4	8.39	5.81	mg/kg	1
06955	Copper Lead	7440-50-8	70.2	4.65	mg/kg	1
06958		7439-92-1	346.	11.6	mg/kg	1
06961	Manganese	7439-96-5	695.	2.32	mg/kg	1
06966	Nickel	7440-02-0	18.4	5.81	mg/kg	1
	Silver	7440-22-4	1.21 J	2.32	mg/kg	1
06971	Vanadium	7440-62-2	30.8	2.32	mg/kg	1
06972	Zinc	7440-66-6	3,530.	11.6	mg/kg	
00111	Moisture Code 086	n.a.	13.9	0.50	*	1
	"Moisture" represents the loss	in weight of th	he sample afte		*	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					
00394	pH Code 067	n.a.	6.3	0.010	Std.	1
	The pH was performed on a 1.1	alurra (25			Units	

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

No.

CAT

Analysis Name

Method

Analysis Trial# Date and Time

Analyst

9942

Dilution Factor





Lancaster Laboratories Sample No. SW 4544604

OU4-SS-11-COMP3(12-18) Soil Sample

RAL DePue Site

Collected: 06/09/2005

Submitted: 06/16/2005 09:00 Reported: 07/27/2005 at 11:37

Discard: 08/27/2005

11CO3 SDG#: DPU08-15

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

G1 m				Dry		
CAT No.			Dry	Method		Dilution
	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.312	0.123	mg/kg	1
01643	Aluminum	7429-90-5	14,700.	24.5	mg/kg	1
01650	Calcium	7440-70-2	9,680.	36.8	mg/kg	1
01654	Iron	7439-89-6	28,400.	24.5	mg/kg	1
01657	Magnesium	7439-95-4	3,260.	30.6	mg/kg	1
01662	Potassium	7440-09-7	2,450.	61.3	mg/kg	1
01667	Sodium	7440-23-5	301.	123.	mg/kg	1
06925	Thallium	7440-28-0	1.91	1.23	mg/kg	1
06935	Arsenic	7440-38-2	21.6	1.23	mg/kg	1
06936	Selenium	7782-49-2	1.31	1.23	mg/kg	
06944	Antimony	7440-36-0	N.D.	7.35	mg/kg	1
06946	Barium	7440-39-3	688.	12.3		
06947	Beryllium	7440-41-7	1.92	0.368	mg/kg	1
06949	Cadmium	7440-43-9	15.6	2.45	mg/kg	1
06951	Chromium	7440-47-3	24.3	4.90	mg/kg	1
06952	Cobalt	7440-48-4	8.78	6.13	mg/kg	1
06953	Copper	7440-50-8	66.3	4.90	mg/kg	1
06955	Lead	7439-92-1	567.		mg/kg	1
06958	Manganese	7439-96-5	676.	12.3	mg/kg	1
06961	Nickel	7440-02-0	25.4	2.45	mg/kg	1
06966	Silver	7440-02-0		6.13	mg/kg	1
06971	Vanadium		1.49 J	2.45	mg/kg	1
06972	Zinc	7440-62-2	34.5	2.45	mg/kg	1
00111	Moisture Code 086	7440-66-6	2,790.	12.3	mg/kg	1
		n.a.	18.4	0.50	8	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of the moisture result	he sample after t reported abov	oven drying at ve is on an		
00394	pH Code 067 The pH was performed on a 1:1	n.a.	7.2	0.010	Std. Units	1

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

No. Analysis Name

CAT

Method

Analysis Trial# Date and Time

Analyst

2344

Dilution Factor





Lancaster Laboratories Sample No. SW 4551776

OU4-SS-14-12(1-6) Soil Sample RAL DePue Site

Collected: 06/14/2005

Submitted: 06/25/2005 09:30 Reported: 07/27/2005 at 11:33

Discard: 08/27/2005

14-12 SDG#: DPU08-16

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

				Dry		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.214	0.109	mg/kg	1
01643	Aluminum	7429-90-5	8,770.	21.8	mg/kg	1
01650	Calcium	7440-70-2	19,300.	32.8	mg/kg	1
01654	Iron	7439-89-6	28,900.	21.8	mg/kg	1
01657	Magnesium	7439-95-4	8,170.	27.3	mg/kg	1
01662	Potassium	7440-09-7	1,600.)	54.6	mg/kg.	1
01667	Sodium	7440-23-5	201.	109.	mg/kg	1
06925	Thallium	7440-28-0	2.22	1.09	mg/kg	1
06935	Arsenic	7440-38-2	28.9	1.09	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.09	mg/kg	1
06944	Antimony	7440-36-0	1.03 J	6.55	mg/kg	1
06946	Barium	7440-39-3	4,510.	10.9	mg/kg	10
06947	Beryllium	7440-41-7	2.28	0.328	mg/kg	
06949	Cadmium	7440-43-9	30.6	2.18	mg/kg	1
06951	Chromium	7440-47-3	15.9	4.37	mg/kg	1
06952	Cobalt	7440-48-4	14.6	5.46		
06953	Copper	7440-50-8	77.1	4.37	mg/kg	1
06955	Lead	7439-92-1	517.	10.9	mg/kg	1
06958	Manganese	7439-96-5	1,370.		mg/kg	1
06961	Nickel		32.8	2.18	mg/kg	10
06966	Silver	7440-02-0		5.46	mg/kg	1
06971		7440-22-4	100000000000000000000000000000000000000	2.18	mg/kg	1
06972	Zinc	7440-62-2	24.9	2.18	mg/kg	1
00111	Moisture Code 086		3,470.	10.9	mg/kg	1
		n.a.	8.4	0.50	8	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	moisture resul	he sample after t reported abov	oven drying at e is on an		
00394	pH Code 067	n.a.	7.0	0.010	Std. Units	1

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

No. Analysis Name

CAT

Method

Analysis Trial# Date and Time

Analyst

9948 Dilution Factor





Lancaster Laboratories Sample No. SW 4551777

OU4-SS-14-18(1-6) Soil Sample RAL DePue Site

Collected: 06/14/2005

Submitted: 06/25/2005 09:30 Reported: 07/27/2005 at 11:33

Discard: 08/27/2005

14-18 SDG#: DPU08-17

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

				Dry		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
06935	Arsenic	7440-38-2	15.7	1.14	mg/kg	1
00111	Moisture Code 086	n.a.	12.6	0.50	ŧ	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of t moisture resul	he sample afte t reported abo	r oven drying at ve is on an		
00394	pH Code 067	n.a.	6.9	0.010	Std. Units	1
	The pH was performed on a 1:1	slurry (25 oms	of sample and	25 ml	VIIICS	90

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laborator	v Chron	icla
Habutatul	A CITTOI	TTCTE

CAT				Analysis		D/1.6/
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Dilution Factor
06935	Arsenic	SW-846 6010B	1	07/05/2005 05:36	Deborah A Krady	1
00111	Moisture Code 086	EPA 160.3 modified	1	06/30/2005 18:52	Scott W Freisher	1
00394	pH Code 067	SW-846 9045C (modified)	1	06/28/2005 22:00	Luz M Groff	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	07/04/2005 07:25	Suzette L Lehman	1





Lancaster Laboratories Sample No. SW 4551778

OU4-SS-14-19(0-1) Unspiked Soil Sample RAL DePue Site

Collected:06/14/2005 10:30

by AB

Account Number: 11594

Submitted: 06/25/2005 09:30 Reported: 07/27/2005 at 11:33

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

Discard: 08/27/2005

14-19 SDG#: DPU08-18BKG

				Dry		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
06935	Arsenic	7440-38-2	20.7	1.24	mg/kg	1
00111	Moisture Code 086	n.a.	19.2	0.50	8	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of t moisture resul	he sample aft t reported ab	er oven drying at ove is on an		
00394	pH Code 067	n.a.	6.6	0.010	Std.	1

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

The second second		4				
CAT				Analysis		Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
06935	Arsenic	SW-846 6010B	1	07/05/2005 05:12	Deborah A Krady	1
00111	Moisture Code 086	EPA 160.3 modified	1	06/30/2005 18:52	Scott W Freisher	1
00394	pH Code 067	SW-846 9045C (modified)	1	06/28/2005 22:40	Luz M Groff	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	07/04/2005 07:25	Suzette L Lehman	1





Lancaster Laboratories Sample No. SW 4551782

OU4-SS-15-17(1-6) Soil Sample RAL DePue Site

Collected: 06/14/2005

Submitted: 06/25/2005 09:30 Reported: 07/27/2005 at 11:33

Discard: 08/27/2005

15-17 SDG#: DPU08-19

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

				Dry		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
06935	Arsenic	7440-38-2	19.3	1.16	mg/kg	1
00111	Moisture Code 086	n.a.	14.1	0.50	8	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of to moisture result	ne sample after t reported above	r oven drying at ve is on an		
00394	pH Code 067	n.a.	7.1	0.010	Std. Units	1
	The pH was performed on a 1:1	slurry (25 cms	of sample and	25 ml		

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chron	 0	10

-		4				
CAT				Analysis		Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
06935	Arsenic	SW-846 6010B	1	07/05/2005 05:40	Deborah A Krady	1
00111	Moisture Code 086	EPA 160.3 modified	1	06/30/2005 18:52	Scott W Freisher	1
00394	pH Code 067	SW-846 9045C (modified)	1	06/28/2005 22:40	Luz M Groff	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	07/04/2005 07:25	Suzette L Lehman	1





Lancaster Laboratories Sample No. SW 4551783

OU4-SS-DUP-7 Soil Sample RAL DePue Site

Collected: 06/14/2005

Submitted: 06/25/2005 09:30 Reported: 07/27/2005 at 11:33

Discard: 08/27/2005

DUP-7 SDG#: DPU08-20FD*

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

				Dry		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159		7439-97-6	0.223	0.110	mg/kg	1
01643	Aluminum	7429-90-5	9,530.	21.9	mg/kg	1
01650	Calcium	7440-70-2	19,700.	32.9	mg/kg	1
01654	Iron	7439-89-6	29,800.	21.9	mg/kg	1
01657	Magnesium	7439-95-4	8,300.	27.4	mg/kg	1
01662	Potassium	7440-09-7	1,650.	54.8	mg/kg	1
01667		7440-23-5	274.	110.	mg/kg	1
06925	Thallium	7440-28-0	1.86	1.10	mg/kg	1
06935	Arsenic	7440-38-2	29.4	1.10	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.10	mg/kg	1
06944	Antimony	7440-36-0	1.44 J	6.58	mg/kg	1
06946	Barium	7440-39-3	4,280.	11.0	mg/kg	10
06947	Beryllium	7440-41-7	2.22	0.329	mg/kg	1
06949	Cadmium	7440-43-9	27.6	2.19	mg/kg	1
06951	Chromium	7440-47-3	16.6	4.39	mg/kg	1
06952	Cobalt	7440-48-4	8.66	5.48	mg/kg	1
06953	Copper	7440-50-8	138.	4.39	mg/kg	1
06955	Lead	7439-92-1	469.	11.0	mg/kg	1
06958	Manganese	7439-96-5	626.	2.19	mg/kg	1
06961	Nickel	7440-02-0	22.8	5.48	mg/kg	1
06966	Silver	7440-22-4	1.09 J	2.19	mg/kg	1
06971	Vanadium	7440-62-2	27.8	2.19	mg/kg	1
06972	Zinc	7440-66-6	3,140.	11.0	mg/kg	1
00111	Moisture Code 086	n.a.	8.8	0.50	*	1
	"Moisture" represents the los 103 - 105 degrees Celsius. Thas-received basis.	s in weight of t e moisture resul	he sample after t reported abov	oven drying at		•
00394	pH Code 067	n.a.	7.2	0.010	Std. Units	1
	The DH was performed on a 1.1	Elures /25		25 3	JHI CD	

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

CAT Analysis Name Method Trial# Date and Time Analyst 8956 Factor



Chain of Custody



Byracuse, NY 13214-0086

(315) 448-9120

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

11594/947645/4544590-604

9 COC Number Remarks DATE TIME MATRIX COMP. GRAB Containers 1 2 3 4 6 6 7 HOLD 6/8/2005 0:00 SO 1 X X Requested Analyses × × RAL DePue 8tte 80 80 80 6/8/2005 0:00 8/8/2005 0:00 6/8/2005 0:00 PROJECT NAME OU4-SS-08-COMP3(0-1) OU4-SS-08-COMP3(1-8) OU4-SS-08-COMP2(0-1) OU4-SS-08-COMP4(0-1) SAMPLE 1D SAMPLERS: (Signifure) 85534 PROJ. NO.

requested Artalyses	19808		Special Instructions/ Comments:		8	Special Odio	
1. Metals					3	CIRI GOOGO IN	#CUCIION#
2. pH			_				
è,				Laboratory Ir	Laboratory Information and Receipt	scelpt	
4.			Lab Name: Lancaster Laboratories			Ι.	
8.			Shipping Tracking #		府: Cooler packed with ice	Samp	Sample Receipt:
G.			Specify Turnaround Requirements:				
7.				Tal Coole	(5) Cooler custody seal intact		Tempo
Refinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (8ignature)		DATE TIME	TIME Received by: (Signature)
Dellowder		8/			85		(District of the last of the l
Acting the Dy. (Signature)	DATE	TIME	Received by: (Signature)	Reinquished by: (Signature)		DATE TIME	Received by: (Styne)
						+	
Retiriquitaned by: (Signature)	DATE	TIME	Received by: (8lgrature)	Relinquished by: (Signature)		ATE TIME	Becelved her /6
						16-1000	Cie- Con Manual M. College Control of College



Syracuse, NY 13214-0066

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

409-0654454/549646/46511

= COC Number Remarks TIME MATRIX COMP. GRAB Contethers 1 2 3 4 6 6 7 HOLD 0:00 SO 1 X X X Requested Analyses × × RAL DePue 8the 80 80 SO 80 6/8/2005 0:00 6/8/2005 0:00 6/8/2005 0:00 6/8/2005 0:00 6/8/2005 0:00 DATE PROJECT NAME OU4-SS-09-COMP3(8-12) OU4-SS-09-COMP1(1-6) OU4-SS-09-COMP2(1-8) OU4-SS-09-COMP4(1-8) OU4-SS-09-COMP5(1-6) SAMPLE ID 8AMPLERS: (8Ignbure) 85534 (315) 446-9120 PROJ. NO.



Syracuse, NY 13214-0066

(315) 446-9120

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

11594/947645 /4544590-604

77 COC Number Remarks
 DATE
 TIME
 MATRIX
 COMP. GRAB
 Containers
 1
 2
 3
 4
 5
 7
 HOLD

 6/8/2005
 0:00
 SO
 1
 X
 X
 X
 X
 Y
 HOLD
 Requested Analyses × RAL DePue Site 80 8 6/9/2005 0:00 8/9/2005 0:00 PROJECT NAME OU4-SS-10-COMP2(1-8) OU4-SS-10-COMP1(0-1) 004-53-10-10(1-6) SAMPLE 1D SAMPLERS: (Signiture) 85534 PROJ. NO.

Refinquished by: (Signature)	Requested Analyses	9.0		Special Instructions/ Comments:			
Lab Name: Lancaster Laboratories Shipping Tracking # Specify Turnaround Requirements: DATE TIME Received by: (8 ignature) Refinquished by: (8 ignature) DATE TIME Received by: (8 ignature) DATE TIME Received by: (8 ignature) DATE TIME Received by: (8 ignature)	1. Metais				0	pecial dave	C Instructions
Lab Name: Lancaster Laboratories Shipping Tracking # Specify Turnaround Requirements: DATE TIME Received by: (Signature) Refinquished by: (Signature) Refinquished by: (Signature) DATE TIME Received by: (Signature)	2. pH						
Lab Name: Lancester Laboratories Shipping Tracking # Specify Turnaround Requirements: DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) Refinquished by: (Signature) DATE TIME Received by: (Signature)	.6				Laboratory Information and	Receiot	
Shipping Tracking # Specify Turnaround Requirements: DATE TIME Received by: (8 ignature)	4			l		idenail.	
Shipping Tracking # Specify Turnaround Requirements: DATE TIME Received by: (Signature)							Sample December
Specify Turnanound Requirements: DATE TIME Received by: (Signature)	5.				Cooler packed with ice		satisfied National
DATE TIME Received by: (Signature)	9			Out of the Paris			
DATE TIME Received by: (8 ignature) Refinquished by: (8 ignature) DATE DATE TIME Received by: (8 ignature) Refinquished by: (8 ignature) DATE TIME Received by: (8 ignature) Refinquished by: (8 ignature)	7.			specify furnaround Requirements:	Cooler custody seal in		Condition/Cooley Temp:
DATE TIME Received by: (Signature) Refinquished by: (Signature) DATE DATE TIME Received by: (Signature) Refinquished by: (Signature) DATE DATE TIME Received by: (Signature) Refinquished by: (Signature) DATE	Collection of the same					_	man 1 2 20
DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) Relinquished by: (Signature)	Centradustre Dott (Sporature)	DATE	T WE	Received by: (Signature)	Refinquished by: (Signature)	-1/	12
DATE TIME Received by: (Signature) Relinquished by: (Signature) DATE DATE TIME Received by: (Signature) Relinquished by: (Signature) DATE		600	3	т	/		/
DATE TIME Received by: (Signature) Refinquished by: (Signature) DATE	New Addition of Colgnatus	DATE	TIME	Received	Reinquished by: (Signature)	+	TIME Received by: (Stanature)
DATE TIME Received by: (Signature) Reinquished by: (Signature) DATE TIME			_	- 1	/		
8	remadanse by: (Signame)	DATE		Received by: (Signature)	,		TIME Received by: (Signature)
						1	Sold Sold Sold Sold Sold Sold Sold Sold



CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

6723 Towpath Rd Syracuse, NY 13214-0086 (315) 446-9120

11594/947645/4544590-604

13 COC Number Remarks DATE TIME MATRIX COMP. GRAB Containers 1 2 3 4 5 6 7 HOLD 6/8/2005 0:00 SO 1 X X Requested Analyses RAL DePue Sits 80 80 6/9/2005 0:00 6/9/2005 0:00 PROJECT NAME OU4-SS-11-COMP3(12-18) OU4-SS-11-COMP1(1-8) OU4-SS-11-COMP2(0-1) SAMPLE ID SAMPLERS: (Signifure) 85534 PROJ. NO.

Requested Analyses	Special Instructional Comments:	AC Island	Section 1
1. Metale		The state of the s	INSTRUCTIONS
2. pH			
ÿ.		Laboratory Information and Receipt	
*	lab Mema- Lancaster Laboursolas		
	Lab remite. Lancaster Laboratories		Sample Receipt
0,	Shipping Tracking *	Cooler packed with Ice	The second
9	Spanik Timemand Damile Land	T	
7.	opening the second requirements.	S Cooler custody seal intact	Condition/Cooler Temp:
			000
Relinquished by: (Signature) DATE TIME	Received by: (Signature)		LINET 13.5
6,509 1780		NAME OF COUNTY (SEPARATE) DATE	TIME Received by: (Signature)
	Barahand har 10 lamestran		4
	(September 19: (September)	Melinquished by: (Signature) DATE	TIME Received by (Signature)
NATE A		/	/
DAIL STREET	Received by: (Signature)	Relinquished by: (8 ignature)	Re
		000 300	oras Kuthu Bink On

Hecourt#11594 Group#948972 Sample 455/76-83

BBB COUCK & LE, INC.

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

6723 Towpath Rd Byracuse, NY 13214-0086 (318) 448-9120

TAGE NO.	PROJECT NAME												1000
86534					ď	RAL DePue Site	Sife						28
SAMPLERS: (Signifure)							L						
							R	Requested Analyses	ted A	nahys	80		
SAMPLEID		TIME	MATRIX	COMP	GRAB	TIME MATRIX COMP. GRAB Containers 1 2 3 4 5	-	2 3	4	10	-	HOID	
004-58-14-12(1-6)	6/14/2005	0:00	80			-	×	×	1	+	1		Remarks
OU4-SS-14-18(1-8)	6/14/2005 0:00	0:00	SO	L		-	×	×	1	+	1		
OU4-SS-14-19(0-1)	6/14/2005 0:00	0:00	SO			+	×	×	1	+	1	-	
OU4-88-14-20(0-1)	8/14/2005	00:0	SO			-	×	×		+	I		

1. Areenic 2. Metals 3. pH 4. 4. Areenic 5. Betals 3. pH 5. Cooler custody seal intact 6. Received by: (Signature) Condition/Cooler Temp:	Requested Analyses			Special Instructions/ Comments:	700	Special OAIO	
Lab Narge: Lancaster Laboratories Shipping Tracking # Specify Tumaround Requirements: DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) Relinquished by: (Signature) Relinquished by: (Signature)	1. Arsenic				El .	Topon is inside	e manuchons
Lab Narge: Lencaster Laboratories Shipping Tracking # Shipping Tracking # Specify Tumaround Requirements: DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) Relinquished by: (Signature)	2. Metalu						
Lab Narge: Lencaster Laboratories Shipping Tracking # Specify Turnaround Requirements: DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) Refinquished by: (Signature) DATE TIME Received by: (Signature) Refinquished by: (Signature)	3. pH				Laboratory Information a	nd Receipt	
Shipping Tracking # Specify Turnaround Requirements: Specify Turnaround Regingulahed by: (Signature) Refinquished by: (Signature) DATE TIME Received by: (Signature) Refinquished by: (Sign	4.			Lab Name: Lencaster Laboratories			
DATE TIME Received by: (Signature) Relinquished by: (Signature)	10			IF.	ig Cooler packed with		ample Receipt:
DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) Relinquished by: (Signature) DATE TIME Received by: (Signature)							
DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) Relinquished by: (Signature)	7.				图 Cooler custody sea		ondition/Cooler Temp:
DATE TIME Received by: (Signature) Refinquished by: (Signature) Refinquished by: (Signature) Refinquished by: (Signature)		DATE	41116				
DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) Relinquished by: (Signature)		Not o		by: (Signature)	Reflaquished by: (8 ignature)	DATE	IME Received by: (Signature)
DATE TIME Received by: (Signature) Relinquished by: (Signature)	1	1		hr. (Montahara)		-	4
DATE TIME Received by: (Signature) Relinquished by: (Signature)	/			(almonal) · fo	Reamquistred by: (Signature)	_	IME Received by: (& grature)
Relinquished by: (Signature) Relinquished by: (Signature)		_	7114				/
7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7			1	Dy: (Signature)	Relinquished by: (Signature)	DATE	IME Received by: (Signature)
			-		/	0	7- 2 0-2

Heedunt 11594 Groups 948972 Samples 455,1776-83

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

Syracuse, NY 13214-0086 6723 Towpath Rd

(315) 448-9120 PROJ. NO.

PROJ. NO.	PROJECT NAME													
85534					۵	Dobins 4	4		100				COC Number	
SAMPIEDS: /SI-H					2	LAL DELUE SUB	9119						27	
own Leve: (orgnine)												1		1
							Re	Requested Analyses	A be	AMP	80			
						-	-			H				
8AMPLE ID	DATE TIME	TIME	MATRIX	COMP	GRAB	MATRIX COMP. GRAB Containers 1 2 2 2 2	-			- 4	,			1
O M SS-15-17/1 A)	2000 2000	00.0	000			DI PRINCIPALITO		2	•	0		9	Ramarka	
(21)11-21-22-22-22-22-22-22-22-22-22-22-22-2		0.00	SO			-	×			L	L		O'UNION O	1
OLIA SS-15-08/0-11	ALA POOR O.O.	55.0	000							+				
(10)000	W 1442003	3.6	200			-	×		-	L				1
										_				

1. Arsenic 2. pH 3. 4. Lab Name: Lancaster Laboratories 6. Relinquished by: (Signature) DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) Relinquished by: (Signature) Relinqui	Requested Analyses	80		Special Instructions/ Comments:		Special O	
Leboratory Information and Receipt Lab Name: Lancaster Laboratories Shipping Tracking # Shipping Tracking # Shipping Tracking # Shipping Tracking # Specify Turnaround Requirements: DATE TIME Received by: (Signature)	1. Arsenic					a proper i	
Lab Name: Lancaster Laboratories Shipping Tracking # Shipping Tracking # Shipping Tracking # Shipping Tracking # Specify Turnaround Requirements: DATE TIME Received by: (Signature)	1						*
Lab Name: Lancaster Laboratories Shipping Tracking # Specify Turnaround Requirements: DATE TIME Received by: (Signature) Relinquished by: (Signature) DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) Relinquished by: (Signature) DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) DATE TIME Received by: (Signature)	i,				Laboratory Information	and Receipt	
Shecked with ice Sample Receipt DATE TIME Received by: (8 ignature) Refinquished by: (8 ignature) Refinquished by: (8 ignature) Refinquished by: (8 ignature) DATE TIME Received by: (8 ignature) Refinquished by: (8 ignature) DATE TIME Received by: (8 ignature) DATE TIME DATE DATE TIME DATE TIME DATE	4.						
DATE TIME Received by: (Signature)	2			20	El Cooler packed w	h kee	Sample Receipt:
DATE TIME Received by: (Signature)	8.			Spacific Timominal Decision			
DATE TIME Received by: (Signature) Refrictulated by: (Signature) DATE TIME Received by: (Signature) Relinquished by: (Signature) DATE TIME Received by: (Signature) DATE DATE TIME DATE DATE DATE DATE DATE DATE DATE DAT	7.			Coperation of the state of the	E Cooler custody s		Condition/Cooler Temp:
DATE TIME Received by: (8 grature) DATE TIME Received by: (8 grature) DATE TIME Received by: (8 grature) Relinquished by: (8 ignature) Relinquished by: (8 ignature) Relinquished by: (8 ignature) DATE TIME Received by: (8 ignature)	Relinquished Inc. (Blanature)	DATE	TIME				4.0
DATE TIME Received by: (Signature) Relinquished by: (Signature) DATE TIME Received by: (Signature) Relinquished by: (Signature) DATE TIME Received by: (Signature) DATE TIME Received by: (Signature) DATE TIME Received by:		6.79.09	8		Reinquighed by: (Signature)	DATE	TIME Received by: (Bignature)
DATE TIME Received by: (Signature) Relinquished by: (Signature) DATE TIME Received	Relinquighed by: (Bignature)	DATE			Reûnquished by: (8 ignature)	DATE	TIME Received by (Signature)
Melinquished by: (Segnature) Received by: (Segnature) DATE TIME Received by: (Segnature)	Relinquished by: (Signature)	BATE	TIME				/
		/		/	Kelinquished by: (Segmature)	DATE	
						Sign	

Analysis Kequest / Environmental Services Chain of Custody

Lancaster Laboratories

Acct. # 11594 Group# 048972 Sample # 4551776-83

0089723 # 000

93
=
ሟ
按
a
-
×
-
9
-급
-
_
뀾
3
77
ž
5
ā.
4
ø
ь
ö
O
-
ō
-3
=
9
200
0
5
18497
5
O
40
~
9
77
×
5
7
2
_
4
5
=
-
0
9
9
9
۵.

nbers.	11///					Remarks		/K/HSb	DEMISON IN THE PROPERTY OF THE	1511450	743/HSD	destrest.	715/1450	Challen		Date Time Course Dy.	Date Time Received by:		Date Time Received by:		Date Time Received by: Date 'Time	Can Time Received by:
Please print. Instructions on reverse side correspond with circled numbers.			740	July July	WI PSIN		X	X	X	X	X	XXT	X	X	in the desired have	-	Relinquished by:		Retinquished by:		Relinquished by:	Relinquished by:
Please print instructions	PWSID #:	P.O.#;	Quote #:	7/		X I Sullive	X 1 /2/02/	(4/14/105 X		4/14/05 (320 X		14/5/05 1010 X	X 0hh/ Sohil1	X 6011 Solsula	Normal Rush	surcharge.)	Phone Fax , E-mail R	- 1	K	SDG Complete?	No No	-
Client BBL IKM	/49	Project Manager: AMUCT CENSKY	Sampler. AMM BAIRD	Name of state where samples were collected:	2	AUM.55, TUP.7	044, 55- DUP-8	044-55-14-19 (D-1)	044-55-14-20(6-1)	044.55- K-08 (0-1)	044-55-16-16 (4-12)	04455 14-17 (1-L)	OUY-55-17.10 (12.18)	644-55-16-21 (O-1)	Turnaround Time Requested (TAT) (please circle):	(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)	(please circle):		E-mail address:	Data Package Options (please circle if required)		Type II (Tipr II) Other (tryes, Indicate OC sample and submit tripacate volume.)

Lancaster Laboratories, Inc., 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 (717) 656-2300 Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client.

2102 Rev. 10/27/02

DATA REVIEW FOR

DEPUE REMOVAL ACTION LIMIT (RAL) ASSESSMENT DEPUE, ILLINOIS

SDG# DPU09

METALS ANALYSES

Analyses performed by:

Lancaster Laboratories, Inc. Lancaster, Pennsylvania

Review performed by:



Blasland, Bouck & Lee, Inc. Syracuse, New York Summary The following is an assessment of the data package for SDG# DPU09 for sampling from the RAL DePue Site. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample			Ana	alysis		
·			Date	VOA	svoc	PCB	MET	PEST	MISC
OU4-SS-12-COMP1(0-1)	4544605	Soil	6/10/2005				X		
OU4-SS-12-COMP2(1-6)	4544606	Soil	6/10/2005				X		
OU4-SS-12-COMP3(1-6)	4544607	Soil	6/10/2005				X		
OU4-SS-13-COMP1(6-12)	4544608	Soil	6/13/2005				X		
OU4-SS-13-COMP2(6-12)	4544609	Soil	6/13/2005				X		
OU4-SS-13-COMP3(0-1)	4544610	Soil	6/13/2005				X		
OU4-SS-14-20(0-1)	4551790	Soil	6/14/2005				Χ¹		
OU4-SS-DUP-8 ²	4551794	Soil	6/15/2005				X		
OU4-SS-16-15(6-12)	4551795	Soil	6/15/2005				X		
OU4-SS-08-12(1-6)	4551797	Soil	6/8/2005				X		
OU4-SS-13-03(6-12)	4551798	Soil	6/13/2005				X		
OU4-SS-16-16(12-18)	4551799	Soil	6/15/2005				X		
					<u> </u>				

¹ MS/MSD analysis performed on sample.

² Sample ID OU4-SS-DUP-8 is the field duplicate of parent sample OU4-SS-16-15(6-12).

METALS ANALYSES

Introduction

Analyses were performed according to USEPA 6000/7000. Data were reviewed in accordance with USEPA National Functional Guidelines of February 1994.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

Concentration (C) qualifiers:

- U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.
- B The reported value was obtained from a reading less than the contract required detection limit (CRDL) but greater than or equal to the instrument detection limit (IDL).

Quantitation (Q) qualifiers:

- E The reported value is estimated due to the presence of interference.
- N Spiked sample recovery not within control limits.
- * Duplicate analysis not within control limits.

Validation qualifiers:

- J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.
- UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for metals analyses is 180 days and for mercury is 28 days from sample receipt. Samples are required to be preserved at 4°C.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks, i.e., method or rinse blanks, are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks (including initial and continuing calibration blanks and preparation blanks) measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

Sodium was detected in associated blanks. Associated sample results less than the blank action limit were qualified as nondetect.

Several analytes other than sodium were detected in the associated blanks. All associated sample results were greater than the blank action limit; therefore, none of the data were qualified.

Manganese was detected above the method detection limit in the associated rinse blank (RB061005-2) collected on 6/10/05 and found in SDG#DPU05. All associated sample results were greater than the blank action limit; therefore, none of the data were qualified.

Manganese and potassium were detected above the method detection limit in the associated rinse blank (RB061305-2) collected on 6/13/05 and found in SDG#DPU05. All associated sample results were greater than the blank action limit; therefore, none of the data were qualified.

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument continuing performance is satisfactory.

3.1 Initial Calibration

The correct number and type of standards were analyzed and all initial calibration verification standard recoveries were within control limits.

3.2 Continuing Calibration

All continuing calibration verification standard recoveries were within control limits.

3.3 CRDL Standard

All required analytes evaluated by the guidelines exhibited CDRL recoveries within the control limit with the exception of nickel. The CRDL standard of this analyte exhibited recoveries greater than the control limit. All associated sample locations exhibited concentrations greater than two times the reporting limit; therefore, none of the data were qualified due to this deviation.

3.4 ICP Interference Control Sample

All ICS recoveries were acceptable.

4. Matrix Spike/ Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate

Matrix spike and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 Matrix Spike / Matrix Spike Duplicate (MS/MSD)

The MS/MSD of antimony exhibited recoveries less than control limits. All associated sample results for antimony were qualified as estimated.

The MS and/or MSD of copper, chromium and nickel exhibited recoveries greater than control limits. Copper and nickel sample results were qualified as estimated for associated sample location OU4-SS-13-03(6-12).

The relative percent difference (RPD) between the recoveries of MS/MSD associated with cobalt and nickel exhibited RPD greater than control limits. All associated sample results for cobalt and nickel were qualified as estimated.

4.2 Laboratory Duplicate

The relative percent difference (RPD) between laboratory duplicate analyses exhibited a RPD greater than control limits associated with the analyte copper. All associated sample results for calcium were qualified as estimated. All other associated laboratory duplicate RPDs were acceptable.

Field Duplicate

Results for duplicate samples are summarized as follows:

Sample ID / Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
OU4-SS-16-15(6-12) / OU4-SS-DUP-8	Arsenic	29.9	31.1	3.9%

ND not detected.

AC The field duplicate relative percent difference (RPD) is acceptable when the RPD between parent sample and field duplicate sample is less than two times the reporting limit (RL) and where the parent sample and/or duplicate concentration is less than five times RL.

The duplicate results are acceptable.

6. Laboratory Control Sample (LCS)

LCS recoveries were within control limits.

7. Serial Dilution

Serial dilutions were within control limits.

8. Furnace QC

No furnace analyses were performed on the samples.

9. Method of Standard Additions (MSA)

No samples were analyzed following the method of standard additions.

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Data Validation Checklist

Inorganic Data Validation Checklist	TAIL C	NO	1 374
Data Completeness and Deliverables	YES	NO	NA
Is there a narrative or cover letter present?	X		
Are the sample numbers included in the narrative?	X		
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?		X	
Is the package paginated?	X		
Are the forms and copies legible?	X		
Form I to IX			
Are all the Form I through Form IX labeled with:			
Laboratory name?	X		
Sample No.?	X		
SDG No.?	X		
Correct units?	X		
Matrix?	X		
Raw Data			
Is the digestion log for flame AA/ICP present?	X		
Is the digestion log for furnace AA present?			X
Is the distillation log for mercury present?			X
Is the distillation log for cyanides present?			X
Are pH values listed?			
pH for metals analyses <2 (waters)?			X
pH for cyanide analyses >12 (waters)?			X
Percent solids calculation present for soils/sediments?	X		
Are preparation dates present on sample preparation logs/bench sheets?	X		
Are the measurement read out records present for:			
ICP	X		
Flame AA			X
Furnace AA			X
Mercury	X		
Cyanides			X
Is the data legible?	X		
Is the data properly labeled?	X		
Holding Times			
Were mercury analyses performed within 28 days?	X		

Inorganic Data Validation Checklist	YES	NO	NA
Were cyanide distillations performed within 14 days?	ILS	110	X
Were other metal analysis performed within 6 months?	X		
Form I (Final Data)			
Are all forms complete?	X		
Are correct units indicated on Form I's?	X		
Are soil sample results for each parameter corrected for percent solids?	X		
Are all "less than IDL" values properly coded with "U"?	X		
Are the correct concentration qualifiers on Form 1's?	X		
Is a physical description of samples given on Form I's?	X		
Calibration			
Is a record of at least 2 point calibration present for ICP analysis?	X		
Is a record of 5 point calibration present for Hg analysis?	X		
Is a record of 4 point calibration present for:			
Flame AA?			X
Furnace AA?			X
Cyanides?			X
Is one calibration standard at the CRDL level for all AA (except Hg) and cyanides analyses?			X
Is correlation coefficient less than .995 for:			
Mercury Analysis?		X	
Cyanide Analysis?			X
Atomic Absorption Analysis?			X
Form II A (Initial and Continuing Calibration Verification)			
Present and complete for all analytes?	X		
Are all calibration standards (initial and continuing) within control limits for:			
Metals (90-110%)?	X		
Hg (80-120%)?	X		
Cyanides (85-115%)?			X
Was continuing calibration performed every 10 samples or every 2 hours?	X		
Was the ICV for cyanides distilled?			X
Form II B (CRDL Standards for AA and ICP)			
Was a CRDL standard (CRA) analyzed after initial calibration for all AA metals (except Hg)?	X		
Was a mid-range calibration verification standard distilled and analyzed for cyanide analysis?			X
Was a 2xCRDL (or 2xIDL when IDL>CRDL) standard (CRI) analyzed for each ICP run?			

Inorganic Data Validation Checklist			
	YES X	NO	NA
Was CRI analyzed after the ICV/ICB and before the final CCV/CCB, and twice every eight hours for each ICP run?	X		
Are CRA and CRI standards within control limits for metals (70-130%)?		X	
Is mid-range standard within control limits for cyanide (80-120%)			X
Form III (Initial and Continuing Calibration Blanks)			
Present and complete?	X		
Was an initial calibration blank analyzed?	X		
Was a continuing calibration blank analyzed after every 10 samples or every 2 hours (which ever is more frequent)?	X		
Are all calibration blanks (when IDL <crdl) (crdls)?<="" contract="" detection="" equal="" less="" limits="" or="" required="" td="" than="" the="" to=""><td>X</td><td></td><td></td></crdl)>	X		
Are all calibration blanks less than two times Instrument Detection Limit (when IDL>CRDL)?	X		
Form III (Preparation Blank)			
Was one prep. blank analyzed for:			
each Sample Delivery Group SDG)?	X		
each batch of digested samples?	X		
each matrix type?	X		
Is concentration of prep. blank value less than the CRDL (when IDL≤CRDL)?	X		
If no, is the concentration of the sample with the least concentrated analyte less than 10 times the prep. blank?	X		
Is concentration of prep. blank value less than two times IDL (when IDL>CRDL)?		X	
Is concentration of prep. blank below the negative CRDL?		X	
Form IV (ICP Interference Check Sample)			
Present and complete?	X		
Was ICS analyzed at beginning and end of run (or at least twice every 8 hours)?	X		
Are all ICS results inside the control limits (±20%)?	X		
If no, is concentration of Al, Ca, Fe, or Mg lower than the respective concentration in ICS?			X
Form V A (Spiked Sample Recovery - Pre-Digestion/Pre-Distillation			
Present and complete for:			
each SDG?	X		
each matrix type?	X		
Was field blank used for spiked sample?		Х	
Are all recoveries for analytes with sample concentrations less than four times the spike			
4862R doc	JCH		

Inorganic Data Validation Checklist	YES	NO	NA
concentration within control limits (75-125)?	TLS		IVA
		X	X
Are results outside the control limits (75-125%) flagged with "N" on Form I's and Form VA?			A
Aqueous			
Are any spike recoveries:			
less than 30%?			X
between 30-74%?			X
between 126-150%?			X
greater then 150%?			X
Soil/Sediment			
Are any spike recoveries:			
less than 10%?		X	
between 10-74%?	X		
between 126-200%?	X		
greater than 200%?	X		
Form VI (Lab Duplicates)			
Present and complete for:			
each SDG?	X		
each matrix type?	X		
Was field blank used for duplicate analysis?		X	
Are all values within control limits (RPD 20% or difference ≤ ±CRDL)?		X	
If no, are all results outside the control limits flagged with an * on Form I's and VI?	X		
Aqueous			
Is any RPD greater than 20% where sample and duplicate are both greater than or equal to 5 times CRDL?			X
Is any difference between sample and duplicate greater than CRDL where sample and/or duplicate is less than 5 times CRDL?			X
Soil/Sediment			
Is any RPD (where sample and duplicate are both greater than or equal to 5 times CRDL) >35 %?	X		
Is any difference between sample and duplicate (where sample and/or duplicate is less than $5xCRDL$) > $2xCRDL$?		X	
Field Duplicates			
Were field duplicates analyzed?	X		
Aqueous			
is any RPD greater than 50% where sample and duplicate are both greater than or equal to 5xCRDL?			
4862R doc	JCH	-	

Inorganic Data Validation Checklist	TIEG	110	1374
	YES	NO	NA X
Is any difference between sample and duplicate greater than CRDL where sample and/or duplicate is less than 5xCRDL?			X
Soil/Sediment			
Is any RPD (where sample and duplicate are both greater than 5 times CRDL) > 100%?		X	
Is any difference between sample and duplicate (where sample and/or duplicate is less than 5x CRDL) >2xCRDL?		X	
Form VII (Laboratory Control Sample)			
Was one LCS prepared and analyzed for:			
each SDG?	X		
each batch samples digested/distilled?	X		
Aqueous LCS			
Is any LCS recovery:			X
less than 50%?			X
between 50% and 79%?			X
between 121% and 150%?			X
greater than 150%?			X
Solid LCS			
Is LCS "Found" value higher than the control limits?		X	
Is LCS "Found" lower than the control limits?		X	
Form IX (ICP Serial Dilution)			$\overline{}$
Was Serial Dilution analysis performed for:			
each SDG?	X		
each matrix type?	X		
Was field blank(s) used for Serial Dilution Analysis?		X	
Are results outside control limits flagged with an "E"" on Form I's and Form IX when the initial concentration on Form IX is equal to 50 times IDL or greater.		X	
Are any required % difference values:			
> 10%?		X	
≥100%?		X	
Furnace Atomic Absorption (AA) QC Analysis			
Are duplicate injections present in furnace raw data (except during full Method of Standard Addition) for each sample analyzed by GFAA?			X
Do the duplicate injection readings agree within 20% Relative Standard Deviation (RSD) or coefficient of Variation (CV) for concentrations greater than CRDL?			X

Inorganic Data Validation Checklist	YES	NO	NA
Were dilutions analyzed for samples with analytical spike recovery less than 40%?			X
Is analytical spike recovery outside the control limits (85-115%) for any sample?			X
Form VIII (Method of Standard Addition Results)			
Present?			X
If no, is any Form I result coded with "S" or "+"?			X
Was MSA required for any sample but not performed?			X
Is the coefficient of correlation for MSA less than 0.995 for any sample?			X
Is the coefficient of correlation for MSA less than 0.990 for any sample?			X
Was proper quantitation procedure followed?			X
Dissolved/Total for Inorganic/Total Analytes			
Were any analyses performed for dissolved as well as total analytes on the same sample.			X
Is the concentration of any dissolved analyte greater than its total concentration by more than 10%? (if >CRDL)			X
Is the concentration of any dissolved analyte greater than its total concentration by more than 50%?			X
Field Blank			
Is the field blank concentration less than CRDL (or 2xIDL when IDL>CRDL) for all analytes?			X
If no, was field blank value already rejected due to other QC criteria?			X
Form X, XI, XII (Verification of Instrumental Parameters)			
Is verification report present for :			
Instrument Detection Limits (quarterly)?	X		
ICP Interelement Correlation Factors (annually)?	X		
ICP Linear Ranges (quarterly)?	X		
Is IDL greater than CRDL for any analyte?		X	
If yes, are the concentrations of the samples analyzed on the instrument whose IDL exceeds CRDL, greater than 5xIDL.			X
Was any sample result higher than the linear range of ICP.		X	
Was any sample result higher than the highest calibration standard for non-ICP parameters?		X	
If yes for any of the above, was the sample diluted to obtain the result on Form I?			X
Percent Solids			
Are the percent solids in soil/sediment(s):			
< 50%?		X	
< 10%?		X	

Corrected Sample Analysis Data Sheets



Lancaster Laboratories Sample No. SW 4544605

OU4-SS-12-COMP1(0-1) Soil Sample

RAL DePue Site

Collected: 06/10/2005

Submitted: 06/16/2005 09:00 Reported: 08/04/2005 at 14:09

Discard: 09/04/2005

12CO1 SDG#: DPU09-01

Account Number: 11594

Dry

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

				DLI		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.0267 J	0.116	mg/kg	1
01643	Aluminum	7429-90-5	11,800.	23.1	mg/kg	1
01650	Calcium	7440-70-2	7,880.	34.7	mg/kg	1
01654	Iron	7439-89-6	19,100.	23.1	mg/kg	1
01657	Magnesium	7439-95-4	2,280.	28.9	mg/kg	1
01662	Potassium	7440-09-7	1,780.	57.8	mg/kg	1
01667	Sodium	7440-23-5	279.	116.	mg/kg	1
06925	Thallium	7440-28-0	N.D.	1.16	mg/kg	1
06935	Arsenic	7440-38-2	7.45	1.16	mg/kg	1
06936		7782-49-2	N.D.	1.16	mg/kg	1
06944		7440-36-0	N.D.	6.94	mg/kg	1
06946	Barium	7440-39-3	632.	11.6	mg/kg	1
06947	Beryllium	7440-41-7	0.840	0.347	mg/kg	1
06949	Cadmium	7440-43-9	17.0	2.31	mg/kg	1
06951	Chromium	7440-47-3	19.8 1	4.62	mg/kg	1
06952	Cobalt	7440-48-4	6.90	5.78	mg/kg	1
06953	Copper	7440-50-8	27.9	4.62	mg/kg	1
06955	Lead	7439-92-1	147.	11.6	mg/kg	1
06958	Manganese	7439-96-5	690.	2.31	mg/kg	1
06961	Nickel	7440-02-0	14.4	5.78	mg/kg	1
06966	Silver	7440-22-4	0.711 J	2.31	mg/kg	1
06971	Vanadium	7440-62-2	29.0	2.31	mg/kg	1
06972	Zinc	7440-66-6	1,650.	11.6	mg/kg	1
00111	Moisture Code 086	n.a.	13.5	0.50	*	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of t moisture resul	he sample after t reported abov	r oven drying at we is on an		-
00394	pH Code 067	n.a.	6.7	0.010	Std. Units	1
	The pu was manfamed as a	4 1				

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

CAT No. Analysis Name

Method

Analysis
Trial# Date and Time

Analyst

8916 Dilution Factor





Lancaster Laboratories Sample No. SW 4544606

OU4-SS-12-COMP2(1-6) Soil Sample

RAL DePue Site

Collected: 06/10/2005

Submitted: 06/16/2005 09:00 Reported: 08/04/2005 at 14:09

Discard: 09/04/2005

12CO2 SDG#: DPU09-02

Account Number: 11594

Dry

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

				22		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection	Units	Factor
00159	Mercury	7439-97-6	0.0763 J	0.105	mg/kg	1
01643	Aluminum	7429-90-5	6.800.	21.0	mg/kg	1
01650	Calcium	7440-70-2	5,760.	31.5	mg/kg	1
01654	Iron	7439-89-6	18,100.	21.0	mg/kg	1
01657	Magnesium	7439-95-4	2,060.	26.2	mg/kg	1
01662	Potassium	7440-09-7	1,020.	52.5	mg/kg	1
01667	Sodium	7440-23-5	163.	105.	mg/kg	1
06925	Thallium	7440-28-0	N.D.	1.05	mg/kg	1
06935	Arsenic	7440-38-2	15.1	1.05	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.05	mg/kg	1
06944	Antimony	7440-36-0	2.63 J	6.30	mg/kg	1
06946	Barium	7440-39-3	2,000.	10.5	mg/kg	5
06947	Beryllium	7440-41-7	0.735	0.315	mg/kg	1
06949	Cadmium	7440-43-9	47.6	2.10	mg/kg	1
06951	Chromium	7440-47-3	14.1	4.20	mg/kg	1
06952	Cobalt	7440-48-4	5.10 J	5.25	mg/kg	1
06953	Copper	7440-50-8	57.9	4.20	mg/kg	1
06955	Lead	7439-92-1	297.	10.5	mg/kg	1
06958	Manganese	7439-96-5	576.	2.10	mg/kg	1
06961	Nickel	7440-02-0	14.2	5.25	mg/kg	1
06966	Silver	7440-22-4	1.31 J	2.10	mg/kg	1
06971	Vanadium	7440-62-2	22.0	2.10	mg/kg	1
06972	Zinc	7440-66-6	3,370.	10.5	mg/kg	1
00111	Moisture Code 086	n.a.	4.7	0.50	8	1
23333	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	in weight of t	the sample after It reported abov	oven drying at re is on an		
00394	pH Code 067	n.a.	6.7	0.010	Std. Units	1
		-1 /25	of cample and	25 ml		

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

Analysis

8818 Dilution

CAT No.

Analysis Name

Method

Trial# Date and Time

Analyst

Factor





Lancaster Laboratories Sample No. SW 4544607

OU4-SS-12-COMP3(1-6) Soil Sample

RAL DePue Site

Collected: 06/10/2005

Submitted: 06/16/2005 09:00 Reported: 08/04/2005 at 14:09

Discard: 09/04/2005

12CO3 SDG#: DPU09-03

Account Number: 11594

Dry

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection	Units	Factor
110.	many sas mans			Limit	200	
00159	Mercury	7439-97-6	0.0639 J	0.112	mg/kg	1
01643	Aluminum	7429-90-5	6,010.	22.3	mg/kg	1
01650	Calcium	7440-70-2	3,020.	33.5	mg/kg	1
01654	Iron	7439-89-6	17,800.	22.3	mg/kg	1
01657	Magnesium	7439-95-4	1,600.	27.9	mg/kg	1
01662	Potassium	7440-09-7	799.	55.9	mg/kg	1
01667	Sodium	7440-23-5	142. ND (142)	112.	mg/kg	. 1
06925	Thallium	7440-28-0	N.D.	1.12	mg/kg	1
06935	Arsenic	7440-38-2	10.9	1.12	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.12	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.70	mg/kg	1
06946	Barium	7440-39-3	1,230.	11.2	mg/kg	5
06947	Beryllium	7440-41-7	0.551	0.335	mg/kg	1
06949	Cadmium	7440-43-9	42.6	2.23	mg/kg	1
06951	Chromium	7440-47-3	12.2	4.47	mg/kg	1
06952	Cobalt	7440-48-4	5.01 J	5.59	mg/kg	1
06953	Copper	7440-50-8	44.2	4.47	mg/kg	1
06955	Lead	7439-92-1	313.	11.2	mg/kg	1
06958	Manganese	7439-96-5	693.	2.23	mg/kg	1
06961	Nickel	7440-02-0	12.6	5.59	mg/kg	1
06966	Silver	7440-22-4	0.995 J	2.23	mg/kg	1
06971	Vanadium	7440-62-2	19.5	2.23	mg/kg	1
06972	Zinc	7440-66-6	3,190.	11.2	mg/kg	1
00111	Moisture Code 086	n.a.	10.5	0.50	8	1
00111	"Moisture" represents the loss			oven drying at		
	103 - 105 degrees Celsius. The	moisture resu	lt reported above	is on an		
	as-received basis.					_
00394	pH Code 067	n.a.	6.9	0.010	Std.	1
				NF -1	Units	

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

Analysis

8828 Dilution

CAT No.

Analysis Name

Method

Trial# Date and Time Analyst

Factor





Lancaster Laboratories Sample No. SW 4544608

OU4-SS-13-COMP1(6-12) Soil Sample

RAL DePue Site

Collected: 06/13/2005

Submitted: 06/16/2005 09:00 Reported: 08/04/2005 at 14:09

Discard: 09/04/2005

13CO1 SDG#: DPU09-04

Account Number: 11594

Dry

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.173	0.108	mg/kg	1
01643	Aluminum	7429-90-5	11.500.	21.6	mg/kg	1
01650	Calcium	7440-70-2	14,500.	32.4	mg/kg	1
01654	Iron	7439-89-6	27,600.	21.6	mg/kg	1
01657	Magnesium	7439-95-4	7,190.	27.0	mg/kg	1
01662	Potassium	7440-09-7	1.980.	53.9	mg/kg	1
01667	Sodium	7440-23-5	296.	108.	mg/kg	1
06925	Thallium	7440-28-0	N.D.	1.08	mg/kg	1
	Arsenic	7440-38-2	14.4	1.08	mg/kg	1
06935	Selenium	7782-49-2	N.D.	1.08	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.47	mg/kg	1
	Barium	7440-39-3	693.	10.8	mg/kg	1
06946	Beryllium	7440-41-7	1.75	0.324	mg/kg	1
06947	Cadmium	7440-43-9	6.86	2.16	mg/kg	1
06949	Chromium	7440-47-3	20.4	4.31	mg/kg	1
06951		7440-48-4	8.10	5.39	mg/kg	1
06952	Cobalt	7440-50-8	30.2	4.31	mg/kg	1
06953	Copper	7439-92-1	181.	10.8	mg/kg	1
06955	Lead	7439-96-5	632.	2.16	mg/kg	1
06958	Manganese	7440-02-0	23.1	5.39	mg/kg	1
06961	Nickel	7440-22-4	0.572 J	2.16	mg/kg	1
06966	Silver	7440-22-4	30.7	2.16	mg/kg	1
06971	Vanadium	7440-66-6	821.	10.8	mg/kg	1
06972	Zinc		7.3	0.50	*	1
00111	Moisture Code 086	n.a.				
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.	n weight of moisture resu	lt reported abo	ve is on an		
00394	pH Code 067	n.a.	7.5	0.010	Std. Units	1

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Method

Laboratory Chronicle

Analysis
Trial# Date and Time

Analyst

8822 Dilution Factor



Analysis Name

CAT

No.



4544609 Lancaster Laboratories Sample No. SW

OU4-SS-13-COMP2(6-12) Soil Sample

RAL DePue Site

Collected: 06/13/2005

Submitted: 06/16/2005 09:00 Reported: 08/04/2005 at 14:09

Discard: 09/04/2005

13CO2 SDG#: DPU09-05

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

				Dry		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.159	0.114	mg/kg	1
01643	Aluminum	7429-90-5	10,300.	22.9	mg/kg	1
01650	Calcium	7440-70-2	15,300.	34.3	mg/kg	1
01654	Iron	7439-89-6	19,000.	22.9	mg/kg	1
01657	Magnesium	7439-95-4	8,830.	28.6	mg/kg	1
01662	Potassium	7440-09-7	1,900.	57.2	mg/kg	1
01667	Sodium	7440-23-5	155. ND (155)	114.	mg/kg	1
06925	Thallium	7440-28-0	N.D.	1.14	mg/kg	1
06935	Arsenic	7440-38-2	8.62	1.14	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.14	mg/kg	1
06944	Antimony	7440-36-0	N.D.)	6.86	mg/kg	1
06946	Barium	7440-39-3	519.	11.4	mg/kg	1
06947	Beryllium	7440-41-7	0.953	0.343	mg/kg	1
06949	Cadmium	7440-43-9	3.69	2.29	mg/kg	1
06951	Chromium	7440-47-3	17.5	4.58	mg/kg	1
06952	Cobalt	7440-48-4	7.42	5.72	mg/kg	1
06953	Copper	7440-50-8	25.9	4.58	mg/kg	1
06955	Lead	7439-92-1	115.	11.4	mg/kg	1
06958	Manganese	7439-96-5	487.	2.29	mg/kg	1
06961	Nickel	7440-02-0	18.1	5.72	mg/kg	1
06966	Silver	7440-22-4	0.430 J	2.29	mg/kg	1
06971	Vanadium	7440-62-2	25.8	2.29	mg/kg	1
06972	Zinc	7440-66-6	446.	11.4	mg/kg	1
00111	Moisture Code 086	n.a.	12.6	0.50	*	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.					
00394	pH Code 067	n.a.	7.8	0.010	Std. Units	1

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

Analysis Method

Trial# Date and Time Analyst 8824 Dilution Factor



Analysis Name

CAT

No.



Lancaster Laboratories Sample No. SW 4544610

OU4-SS-13-COMP3(0-1) Soil Sample

RAL DePue Site

Account Number: 11594 Collected: 06/13/2005

Submitted: 06/16/2005 09:00 Reported: 08/04/2005 at 14:10

6723 Towpath Road, Box 66 Syracuse NY 13214-0066 Discard: 09/04/2005

13CO3 SDG#: DPU09-06

				Dry		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00159	Mercury	7439-97-6	0.121	0.118	mg/kg	1
01643	Aluminum	7429-90-5	7,100.	23.6	mg/kg	1
01650	Calcium	7440-70-2	21,100.	35.3	mg/kg	1
01654	Iron	7439-89-6	16,100.	23.6	mg/kg	1
01657	Magnesium	7439-95-4	10,900.	29.4	mg/kg	1
01662	Potassium	7440-09-7	1,270.	58.9	mg/kg	1
01667	Sodium	7440-23-5	288.	118.	mg/kg	1
06925	Thallium	7440-28-0	N.D.	1.18	mg/kg	1
06935	Arsenic	7440-38-2	7.78	1.18	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.18	mg/kg	1
06944	Antimony	7440-36-0	23.4	7.07	mg/kg	1
06946	Barium	7440-39-3	1,340.	11.8	mg/kg	5
06947	Beryllium	7440-41-7	0.774	0.353	mg/kg	1
06949	Cadmium	7440-43-9	24.9	2.36	mg/kg	1
06951	Chromium	7440-47-3	14.7	4.71	mg/kg	1
06952	Cobalt	7440-48-4	5.52 J	5.89	mg/kg	1
06953	Copper	7440-50-8	46.1	4.71	mg/kg	1
06955	Lead	7439-92-1	1,890.	11.8	mg/kg	1
06958	Manganese	7439-96-5	486.	2.36	mg/kg	1
06961	Nickel	7440-02-0	15.2	5.89	mg/kg	1
06966	Silver	7440-22-4	0.967 J	2.36	mg/kg	1
06971	Vanadium	7440-62-2	20.1	2.36	mg/kg	1
06972	Zinc	7440-66-6	1,830.	11.8	mg/kg	1
00111	Moisture Code 086	n.a.	15.1	0.50	*	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.					
00394	pH Code 067	n.a.	6.7	0.010	Std. Units	1

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Method

Laboratory Chronicle

Analysis

Trial# Date and Time Analyst

Blasland, Bouck & Lee

8826 Dilution Factor



Analysis Name

CAT

No.



Page 1 of 1

Lancaster Laboratories Sample No. SW 4551790

OU4-SS-14-20(0-1) Unspiked Soil Sample RAL DePue Site

Collected: 06/14/2005

Submitted: 06/25/2005 09:30 Reported: 07/20/2005 at 11:22

Discard: 08/20/2005

14-20 SDG#: DPU09-07BKG

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66 Syracuse NY 13214-0066

				Dry		
CAT			Dry	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
06935	Arsenic	7440-38-2	14.5	1.17	mg/kg	1
00111	Moisture Code 086	n.a.	14.3	0.50	*	1
	"Moisture" represents the loss 103 - 105 degrees Celsius. The as-received basis.					
00394	pH Code 067	n.a.	6.4	0.010	Std. Units	1
				1		

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

CAT				Analysis		Dilutio
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
06935	Arsenic	SW-846 6010B	1	07/06/2005 21:31	Donna R Sackett	1
00111	Moisture Code 086	EPA 160.3 modified	1	06/28/2005 17:45	Scott W Freisher	1
00394	pH Code 067	SW-846 9045C (modified)	1	06/28/2005 22:40	Luz M Groff	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	07/06/2005 07:00	Suzette L Lehman	1





Page 1 of 1

Lancaster Laboratories Sample No. SW 4551794

OU4-SS-DUP-8 Soil Sample RAL DePue Site

Collected: 06/15/2005

Submitted: 06/25/2005 09:30

Reported: 07/20/2005 at 11:22

Discard: 08/20/2005

Account Number: 11594

Blasland, Bouck & Lee 6723 Towpath Road, Box 66

Syracuse NY 13214-0066

DUP-8 SDG#: DPU09-08FD

		Dry					
CAT			Dry	Method		Dilution	
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor	
06935	Arsenic	7440-38-2	31.1	1.12	mg/kg	1	
00111	Moisture Code 086	n.a.	10.8	0.50	8	1	
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an						
00394	as-received basis. pH Code 067	n.a.	6.5	0.010	Std. Units	1	

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory	Chronicla
Laboratory	Chronicle

		10201001	Company of the Company of the Company			Dilutic
CAT	Analysis					
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
06935	Arsenic	SW-846 6010B	1	07/04/2005 12:10	Deborah A Krady	1
		EPA 160.3 modified	1	06/28/2005 17:45	Scott W Freisher	1
00111	Moisture Code 086		1	06/28/2005 22:40	Luz M Groff	1
00394	pH Code 067	SW-846 9045C	1	06/28/2003 22.40	Buz II Grozz	
		(modified)		00 /00 /0005 10 15	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	07/03/2005 19:15	Annamaria Stipkovits	1

